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ABSTRACT

This is a report on the Kamehameha Early Education Program (KEEP), a research and development project designed to find ways of improving the school performance of educationally disadvantaged Hawaiian children. The project, implemented in a laboratory school setting and continuously monitored, is described as a reading instruction program for children in kindergarten and in first to third grade. The report provides a historical background on the multidisciplinary research that led to the development of the program, explains evaluation procedures followed, and discusses results of evaluation obtained as of the reporting period. A brief description of a typical morning in a KEEP classroom leads to discussion of two program components, the direct teaching of comprehension through the reading program, and the social organization of the classroom. The laboratory teacher's role in program development and implementation and teacher training processes are then examined. Included as appendices are an explanation of the Kamehameha Reading Objective System developed to guide teacher planning and program monitoring, samples of teacher training materials used in the program, and a detailed list of specific program goals for teachers and for pupils. (Author/MJL)

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Designing Reading Instruction for Cultural Minorities:

The Case of the Kamehameha Early Education Program

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INTRODUCTION

The Kamehameha Early Education Program (KEEP) is a research and development project designed to find ways of improving the school performance of educationally 'at-risk' Hawaiian children and using these results to help public schools better serve this population. A central question that the KEEP project poses is one that concerns every community in a society as diverse as ours: Whose responsibility is it to build bridges between the culture of a community and the culture of the school? Is it chiefly the young child's responsibility to adjust to the new and different demands encountered upon entering the public school? KEEP is important as an example of a deliberate attempt to take account of the cultural background and abilities developed in the community, and to design an instructional program which is both culturally congruent with community practices and manageable in the public schools.

In January 1981, as a team of six people, we had the opportunity to observe KEEP at first hand. The study team was deliberately diverse: an educational psychologist, a sociolinguist, a psychologist, an educational linguist, an educational administrator and a foundation program officer. Four of the group had been public school teachers; one

member was Hispanic, one Black; all had been involved in research, development and training in the eduction of children from minority cultures. We did not agree about every aspect of the program, but there was consensus that what we had seen was sufficiently important that a report should be prepared for wider dissemination. The project is now known only to a small group of educators and social scientists; a report could make it known to more people and help others to think about the implications of KEEP's work for other children.

We found at KEEP a sustained effort - maintained over a decade and still going - to find out how to increase the chances of school success for the children of a community where educational success is not noteworthy. The modifications the project is making are not radical; rather, they involve subtle alterations in traditional roles and procedures and in the instructional emphases in the teaching of the critical school skill of literacy. KEEP is more specific than many other programs - not necessarily more prescriptive - about which teaching practices are important for children's learning.

It is not clear how much KEEP's progress can be attributed to practices in the educational program that are specific to Hawaiian children and how much to instructional elements that, properly adapted, might work equally well with other populations. Individual elements of the program can be found in operation in a number of mainland schools. In the spirit of the project, our interest is not to try to single out one or the other feature that best explains the program's success, but to encourage discussion

of the different components that, in some combination, seem to comprise the necessary and sufficient ingredients for effective instruction. Unacceptably low levels of educational performance still confront many schools in the United States. To learn about the Kamehameha Early Education Project is to learn as much about its unwillingness to settle for low achievement and about the spirit of inquiry that animates its work as it is to learn about specific program components. We hope this account will help others to share in some measure in the analysis of a venture that has challenged, questioned and provoked our own beliefs and assumptions.

This report has 6 main sections. The first narrates the historical background on the multidisciplinary research that has led to the present program, and reports the various comparisons KEEP has made in evaluating its program and the results they have obtained so far. Second is a brief description of a typical morning in a KEEP classroom, which sets the stage for more extended discussion of two program components: the direct instruction of comprehension and the social organization of the classroom. The third section, on direct instruction in comprehension, discusses in some detail the reading program that has evolved at KEEP, explores alternative explanations for its success, and ends with a report of a test we asked the staff to administer to a few KEEP laboratory school students. The fourth section, on the social organization of the classroom, suggests new meanings for the term "social" in teaching and learning, and includes discussions of the complex relationships between ethnographic research and educational innovation. In the fifth section, the laboratory teachers' roles in KEEP's

development are described, followed by a picture of the training processes that evolved, moving from training in the laboratory school to the training now underway in cooperating public schools. The sixth and last section, the conclusion, pulls together some of the themes highlighted in the report, and includes a brief discussion of the costs of KEEP, a subject not discussed on our trip.*

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*Because so many of the documents about KEEP are not widely available, readers may be especially interested in the Spring, 1981 issue of Educational Perspectives, devoted entirely to KEEP, with contributions from KEEP researchers and one outside commentator, Isabelle Beck. See Appendix A for the Table of Contents of that issue, and information on how to obtain it.

HISTORY AND RESEARCH BACKGROUND

History

The population of the Hawaiian Islands today is highly diverse. Changes in the basis of the census classifications make it difficult to be exact about changes in the population membership. Depending on how data are collected, approximately 20% is estimated to be of Hawaiian or part Hawaiian ancestry or to identify themselves as ethnically Hawaiian. Once primarily an agricultural and fishing people, the native Hawaiian communities have experienced social and economic dislocation in the process of adapting to the demands of a modern industrial and business oriented society. Conflict between the traditional and modern ways of living is particularly manifest in those areas that are heavily ethnic Hawaiian. Some have adapted themselves easier than others; and, as in other communities in transition, the children of the families adhering closest to the traditional ways are likely to experience the greatest discontinuities when they move into the culture of the school. For children of these families, transition can be abrupt. How the school responds to the differences children bring to school can be of paramount importance in the child's willingness to participate in classroom activities.

It was an awareness of the crucial nature of the gap between the home and the dominant culture that first led social scientists and educators to undertake investigations of community life among the Hawaiian ancestry families. Begun in the mid 1960's, these interdisciplinary community studies looked at modes of teaching and learning in the home and in the school and used this information to frame initial questions about discrepancies between styles of

learning in the home and educational performance in school. The starting assumptions of these studies were that the Hawaiian-ancestry families were bi-cultural, that their cultural differences were not deficits but preferred differences in life style and modes of behavior, and that bi-culturalism did not have to be a barrier to participation in modern society. Rather, understanding of the differences might offer insights into ways of creating school environments in which children could learn to participate in the larger society. The school could learn to modify its practices in ways that would enable the children to become successful learners of school tasks, just as they were successful learners of home and community tasks.

By 1970 the Hawaiian community was showing an increasing concern over the poor academic achievement of children from low income homes. Since the 1880's a small percentage of native Hawaiian children had been educated at the Kamehameha Schools, a non-public educational program established by a Trust of the last descendant of the Kamehameha dynasty of Hawaiian monarchs, Bernice Pauahi Bishop. These schools had selected their students from among the most advantaged; and it is now time, said the community, that the Trust (the Bishop estate) turn its attention to the more disadvantaged children, most of whom attend public schools. Building on the findings of the earlier community studies, in 1971 the Trust created the Kamehameha Early Education Program (KEEP) as a research and development project aimed at finding ways of improving the school performance of the educationally at-risk Hawaiian children and using the results to help the public schools better serve this population.

KEEP's main task was to uncover the reasons for the widespread failure

in learning to read and, based on that understanding, to develop an instructional program in which children could be more successful. Systematic observations of learning behavior in the community and in the school, starting with kindergarten in 1972, focused on the child's interactions with adults and other children. As in earlier studies, the research team was multidisciplinary: it involved anthropologists, psychologists, linguists, educational researchers and teachers. It was collaborative and interactive; observations fed into the design of experiments and in turn those findings fed back into new hypotheses and new questions. The orientation of the KEEP team was problem-solving: a systematic search for clues to understanding what goes wrong and an openness to examining why something worked when it did, a reiterative process that Frederick Erickson (1977) has since referred to as "analytic detective work."

The very practical goal of the research project led in 1973 to the opening in Honolulu of an experimental laboratory school, known as Ka Na'i Pono,* purposely designed to facilitate the coordination of research and its applications to classroom design. The intake population - kindergarten through third grade - was planned so that 75% of the children would be from an urban area where many Hawaiian children are "at risk".** Three fourths of the families were receiving financial assistance; few youths complete high school and fewer (about 5%-7%) attend college -- a picture not unlike that of other disadvantaged minority communities in mainland USA.

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* The name "Ka Na'i Pono" means "to strive for excellence." It was given to the school through a traditional practice - it came in a dream to a Hawaiian elder.
** In recent statewide testing, the modal fourth grade scores in schools with high Hawaiian and other Polynesian enrollments are in the tenth percentile. KEEP estimates that some 35,000 children compose the ethnic Hawaiian at-risk public school population.

From the beginning, the research team was determined to find solutions that could work in the public schools. The search for practical alternatives was aided by participation in the research team of the teachers in the laboratory school and by locating the research space on the school site. Data collection was furthered by construction in the laboratory school building of an observational deck with audio and video equipment so that any interaction between teachers and children could be both directly observed and captured on tape. Conditions at the laboratory school otherwise conformed to those in the public school: pupil-teacher ratio, classroom size, resources and school calendar resembled public school conditions.*

Beginning in 1973 and over a period of four years of explorations, experimentation, design, reformulation, try out and revision, an educational program was developed and tested on successive classes of children enrolled in the laboratory school, and the results were compared with those of children of comparable backgrounds attending nearby public schools. By 1977 KEEP felt it had succeeded in identifying the essential features of an appropriate instructional program, one that was both culturally congruent with community practices and manageable in the public school. Data from the experimental groups were showing improvements in pupil performance, confirming the judgements of the staff as to the necessary and sufficient components of an effective reading and language arts program. Meanwhile, the staff had begun to explore the interest of public schools in communities with significant numbers of Hawaiian children; and strategies for moving the program into public school

* Because the reading/language arts teachers in the lab school are active collaborators in curriculum design and research they are in the classroom only in the mornings; other teachers carry out the rest of the primary curriculum in the afternoon.

field sites were formulated. Staff training was redesigned for a public school operation, and in 1978-79 the first public school field site began operation. As of the time of our visit, there were two public school sites, and three more were planned. The goal is state-wide dissemination through the seven districts that make up the public school system of the Islands, concentrating first on schools with 25% or more Hawaiian ancestry children where the achievement level is below the 40th percentile.

Research background

The research activities that contributed to the development of the KEEP program divide into roughly four phases: first, the basic ethnographic and linguistic studies that sought to understand and describe community culture, language and ways of learning and to consider their influence on the children's educational performance; second, the introduction of variations into the school program, observation of their effects on learning, experiments with potentially significant features and assessment of their results; third, transposition of the most promising features into a stable set of classroom practices and design of systems to ensure consistent application by teachers. A fourth stage, overlapping with the third and still underway, is the work of learning how to transfer the resulting program to public school contexts. Phases necessarily transcended the whole sequence of program development: some elements changed or took different forms as new data were collected and fed back from classroom observations. Thus, it

would be misleading to imply that this was a highly sequential and linear development. Although the ethnographic research came first, data from the community continued to inform subsequent inquiry and served as an important resource in helping the staff to interpret children's responses to classroom practices.

The ethnographic studies covered a five year period, concentrated on a community over 50% Hawaiian, and involved all day naturalistic observations in a small number of homes and interviews with parents. The focus was mothers and young children, family socialization patterns and relationships among children. In addition to the informal observations, direct observations were made of mothers' styles of teaching in a variety of games and learning tasks designed by the researchers. To supplement the data from the one community, interviews were conducted with a random sample of 100 households, parents and adolescents. From these investigations researchers learned that many Hawaiian children grow up in an environment of sibling caretaking and sibling work-groups; they have household tasks that they do cooperatively; interaction between mother and children is not characterized by extensive or elaborate verbal instructions. Children learn by observing the activities of older children, and they perform industriously and responsibly with a minimum of supervision. (Gallimore & Howard, 1968)

An early question that preoccupied the research team was whether linguistic differences in the native Hawaiian population - variation along a Hawaiian creole to standard English continuum - could explain some part of school failure, and whether standard English should be directly taught. Samples of childrens' speech were tape recorded by mothers in the home, supplemented by formal interviews with children, at home and in school.

Studies were conducted of children's responses on a variety of linguistic measures and of speech behavior in peer groups; and a study was made of the effects of direct instruction in standard English. Much was learned, but the linguistic research turned up no clear evidence that being bi-dialectal was a barrier to understanding or responding to school instruction. The overall conclusion was that speaking Hawaiian Creole is not a cause of school underachievement (Gallimore, 1977; Gallimore & Tharp, 1976; Speidel, 1981). Thus the research and development team would have to look beyond the forms of language for the roots of school learning problems.

Parallel with the ethnographic and linguistic studies in the Hawaiian communities, the research team studied the behavior of Hawaiian children in the regular public school classrooms and the nature of the instruction they received. Observations were made of the level of children's engagement in classroom activities, and the type of social interactions between children and teachers and among the children. The children were observed to be inattentive, uninvolved, frequently restless or aggressive and hostile. Several years of observation, some directly focused on teachers' efforts to control classrooms, seemed to support a prevailing stereotype of Hawaiian children as lazy, unmotivated, lacking in the abilities necessary for school work. The contrast between this classroom description and the industrious and helping behaviors the researchers had observed in the community constituted both a continuing stimulus for efforts to alter the classroom environment, and a guide for the staff in experimenting with new classroom structures and curriculum practices that would engage the natural abilities of the Hawaiian children.

The KEEP laboratory school setting provided the control over the instructional program necessary for the second and third phases of the

project -- experimentation with trial and error adjustments of e lements in the classroom, and evaluation of their effects. Laboratory school teachers were selected who would not only have patience with ongoing investigations but who would also participate with the researchers in observing children's responses in class and who were willing to examine the effects of their own teaching styles. The practioners' intimate practical knowledge enabled them to offer valued feedback to the research and development staff. Cooperation between researchers and teachers was greatly facilitated by the researchers' respect for classroom experience and their sympathetic evaluation of the teachers' reactions and suggestions.

The initial research task was to introduce variations into the social organization and curriculum, observe them in action, and document the conditions in which children would participate more readily in the classroom. Over time a number of potential new elements were tried out, and those that survived the practical realities of the school were retained, later to become candidates for the program design. Theory was sometimes a determiner of what was tried and at other times a resource in explaining the effects. Some changes were predictable from the ethnographic research; in other cases, the ethnographic data base helped to suggest reasons for the results obtained; in still others, explanations only came to light later on, after the staff had had ample opportunities to reflect on the whole course of events.

In introducing variations into classroom structures and curricula, KEEP sought to learn how to organize an environment that would capture the Hawaiian child's attention and engage his abilities in school learning. How could the industriousness, learning abilities and work orientation the children displayed at home be applied to school work? How could out-of-school cooperation and self-regulation be made to function in the educational program?

If the children were displaying to the researchers age-appropriate verbal and cognitive abilities outside of school, what would it take to get them to apply those abilities in learning to read and meet the achievement expectations of the school? KEEP's answers assume that what had to change were the adult teaching styles that somehow conflicted with or prevented manifestation of the child's natural modes of learning. Thus, while the goal was to improve the child's school performance, the unit of project attention was not the learner but the teacher. Unlike many compensatory education programs that provide added services directly to children, KEEP saw its function as changing the adult-made structures that might be producing the observed low levels of child engagement.

Student industriousness became the first area of classroom experimentation because it represented an area in which successful program effects might lead to improvement of Hawaiian children's educational achievement with minimal alteration in the public schools. KEEP's initial research orientation was drawn directly from psychological learning theory and educational behavior analysis -- the application of learning theory techniques to the investigation and manipulation of children's and teacher's behavior in the classroom. Children's motivation was operationalized to mean the frequency of on-task behavior. Two techniques for increasing school motivation were implemented simultaneously: training the teaching staff in the use of behavior management techniques, especially positive social reinforcements of desirable student behaviors; and establishing a small group organization of classroom activites that permitted the children more self-direction and self-management in their classroom work.

The first formal evaluation of these changes in classroom control and organization was conducted in 1976 with the reading curriculum then in

use -- a phonics or code-oriented basal reading series. The KEEP classrooms were clearly different from the public schools: According to Tharp (personal communication, 1/81) KEEP teachers use up to five times more praise than comparison public school teachers, and employ so little punishment that it cannot be reliably counted. The KEEP kindergarten and first-grade children's on-task rate increased (to about 90% of the time) relative to control-group public school children (about 65% of time). The use of behavioral management techniques was also associated with gains in WPPSI general intelligence test scores among children: children who previously scored in the subnormal verbal IQ range scored in the normal verbal IQ range after a one-year exposure to KEEP. However, examination of the effects of teacher management techniques on gains in students' reading achievement test scores (Gates-MacGinitie test), failed to show any positive effects. KEEP children's reading scores remained at or below the 15th percentile -- a pattern essentially the same as for public school children of Hawaiian background (Gallimore and Tharp, 1974; Tharp and Gallimore, 1976).

When, despite improvements in classroom management and increases in on-task behavior, reading scores continued to be low, the reading curriculum itself came under examination. It was suspected that the highly sequential small-step organization of the formal phonics reading curriculum required too much rule learning and adult verbal direction and lacked meaning for the children. And so the KEEP staff searched for "available alternatives that would have certain features: a small-group orientation, a focus on higher-order cognitive operations, and a psycholinguistic emphasis, including a lot of child language production." A program developed at the University of Arizona and in use at the Flowing Wells demonstration site in Tucson became the basis of KEEP's new comprehension-based reading program,

modified at KEEP in the light of the ethnographic studies and their own previous classroom research. "For example, we insisted that reading instruction must be small groups, and not one-on-one tutorial, as was the Arizona proclivity" (R. Tharp, personal communication, 9/81).

The shift to a comprehension or meaning-emphasis approach to reading proved fortuitous in unanticipated ways. The children themselves showed the way by the pattern of their participation in small group story discussions, a pattern the KEEP staff subsequently analysed (with the help of independent sociolinguistic research by Watson 1975 and Watson-Gegeo & Boggs 1977) as related to an indigenous Hawaiian speech event called "talk story". The result is an explicit formulation of a bicultural classroom and the linking role of the teacher in helping children to apply their everyday experiences and knowledge to the content of school texts.

The process that KEEP went through in designing and trying out components of the new reading program has been described by Tharp (Tharp, 1981; Tharp & Gallimore, 1979). First written as an after-the-fact analysis of KEEP's evolutionary ad hoc processes, the formalized model has, according to Tharp, guided KEEP's work since 1977.

By 1977 the project had identified at least the potential features of a workable program that would be culturally compatible with community practices and more likely to engage the children in school learning than the traditional school reading programs. The initial try outs of the program were encouraging (after one year, test scores in one class went from the 23rd percentile to the 69th). But it took four years of successive trial and error, design and redesign and continuing evaluation, to establish

the essential features of the new curriculum and learn how to maintain them as stable elements of the KEEP school program.

The researchers and developers produced a diagnostic-prescriptive reading skills system, called the Kamehameha Reading Objectives System (Kros-Crowell et al, 1981 - see description in Appendix B) which includes a set of graded behavioral goals and a record system for keeping track of the progress of individual students. They also devised a quality control system for monitoring teaching practices. Together, these systems provide tools for formative evaluation of the program in operation and for feedback of information to teachers. With such records, data can guide the improvement of teaching and can also serve functions of public accountability.

Learning to implement and sustain the program in the classroom is hard work; it requires re-direction of teacher time and focus as well as re-arrangement of room organizations and use of new management tools. Accordingly, teacher training is itself approached as a research and development problem, and considerable investment is being made in studying the training process as KEEP extends its program into the public schools. A continuing question for the research and training groups is the degree of concentrated on-site support necessary for teachers to gain and maintain control over the program's essential features.

Program Evaluation

While KEEP is an educational program undergoing continued evolution,

the present instructional and organization design has reached the stage of stability where impact on learning can be evaluated. In contrast to formative research that produces information guiding the improvement of program elements, the term "program evaluation" is used at KEEP to refer to summative evaluation of the overall effects of the full program on student achievement. A deliberate decision was taken to use standardized tests as the primary outcome measure in order to evaluate the program in terms familiar to educational decision makers.

Three separate comparisons of reading achievement are available. First, comparisons were made of the test score performance of children who had been receiving the phonics-oriented basal reading program, children undergoing KEEP's transition from phonics to comprehension during their primary years, and cohorts of children who received only the new program emphasizing direct instruction in comprehension in small group learning centers. On standardized norm-referenced achievement tests, performance was significantly better for primary grade cohorts instructed after introduction of the comprehension approach, compared with those who experienced the phonics-oriented reading curriculum or part-phonics, part-comprehension.

Whether the small learning centers made a specific contribution to the outcomes, apart from the reading curriculum itself, is not clear. In the staff's view, the effects of individual features can be studied, but their independent contributions to the overall results cannot be evaluated because "they always occur in interaction with others". KEEP's view is that the learning center organization and reading program are interdependent elements: in this setting, at least, the centers are necessary to free the

teacher for direct teaching of comprehension while simultaneously encouraging peer group management of independent work.

KEEP also has made two comparisons of the effectiveness of the experimental program and the regular public school curriculum. These comparisons have taken two forms: first, comparisons of the achievement of KEEP laboratory school children with similarly selected children in a sampling of regular public schools; second, comparisons of children's performance in the KEEP-style program in its first year of implementation in two public schools with that of children in the regular program in the same schools.

Cohorts of children in grades one through three who received the KEEP program were compared with classes in public schools in the same area serving the same high risk disadvantaged population. Both groups were volunteers to the study. On a combination of Gates and Metropolitan tests, in the first year the experimental program was tried, 1976-77, first grade KEEP children scored at the 73rd mean percentile compared with a 30th percentile score for the public school controls. Similar differences were obtained during 77-78 at the second grade level, when the experimental group scored at the 61st percentile compared with the control public school score at the 27th percentile. 1978-79 scores, while not sustained at these initially very high levels, continue to show scores in favor of the KEEP groups at each grade level (Klein, 1981; Tharp, in press):

1978-79 Reading Test Scores (in percentiles)

	KEEP	Controls
Grade One	48.5	29.0
Grade Two	44.0	30.5
Grade Three	50.5	26.0

A number of factors might account for these differences. KEEP points to the specific features and elements of the program which, in combination, distinguish it from regular public school practices.* Also contributing to the very early differences in outcome might be factors that inhere in experimental sites; for example test taking conditions, or the attention and recognition invariably given to teachers and children in special settings.

The second evaluation in public school settings was planned to test the sturdiness of the program in two different public schools and to find out how the features work when subject to local adaptations. The two schools were in rural and semi-rural communities where there are heavy concentrations of Hawaiian ancestry children. Children were assigned randomly, with two first grade classes using the KEEP program and two serving as controls. At the time of our visit, data was available for the first year of public school implementation, 1978-79 . Although it is too soon to assess the durability over time of the cumulative effects on children, the first reports released in 1980 showed KEEP-taught children significantly exceeding controls on two standard measures of reading

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*Besides direct instruction of comprehension in small group learning centers, they include the consistent use of contingency reinforcement techniques, diagnostic prescriptive instruction with continuous feedback of data on student progress, a quality control system which monitors implementation of specific teaching practices, and the teacher training required to maintain the necessary classroom practices. Not mentioned but of possible consequence is the early start the KEEP program gives to reading in the kindergarten.

achievement (Tharp, 1981).

Moreover, data obtained in quality control monitoring of teaching behaviors (Au & Hao, in press) are currently being related to data from KEEP's own criterion referenced tests on a teacher-by-teacher basis. Results obtained to date indicate that public school teachers in the KEEP program do change their behaviors during small group instruction in desired ways, and that improvements in pupil performance accompany these changes (Au, personal communication, 9/81).

While these data in themselves are not sufficient grounds from which to draw firm conclusions about the program's comparative effectiveness, they are a step towards discovering the type of monitoring and support of teachers that is necessary to obtain steady improvements in student achievement. Subsequent reports of evaluations at these and other public school sites should contribute to understanding the level of public school effort that can be maintained and the outcomes that can be expected over time.

Unlike most mainland programs that limit their evaluations to reports of outcome measures, KEEP continues to explore the processes that contribute to the outcomes. It thereby may add important new dimensions to the methodologies of educational evaluation, and simultaneously help others to interpret the implications of KEEP's work for improving the education of children from ethnically diverse low income populations in other parts of the United States.

A TYPICAL MORNING IN THE KEEP LABORATORY SCHOOL FIRST GRADE

The following description is a composite of our observations in January and the narration of the film, "Coming Home to School".*

*Coming Home to School" (produced by R. Tharp, C. Jordan, L. Baird & L. Loganbill, 1980) is available from KEEP in both 16 mm and video cassette media.

When the teacher opens the outside classroom door, the children enter singly or in small groups whenever they get to school. Once she has opened the door, the teacher may remain in the room doing her own preparations for the days' work or chatting with individual children, or she may leave on some errand - it doesn't seem to matter. Without any assignment of jobs or any explicit directions by one teacher, the children get to work to set up the classroom for the morning reading program. They not only take down the chairs and change the date on the classroom calendar; they also set out the equipment, supplies and assignments for as many as twelve reading and language centers around the room. The night before, the teacher had set out the work to be done in numbered center containers, but the child workers still have to look through the work assignments and tell from the formats what supplies are needed. Sometimes the children work together, sometimes alone; some drift in and out of the work force while they visit with friends.

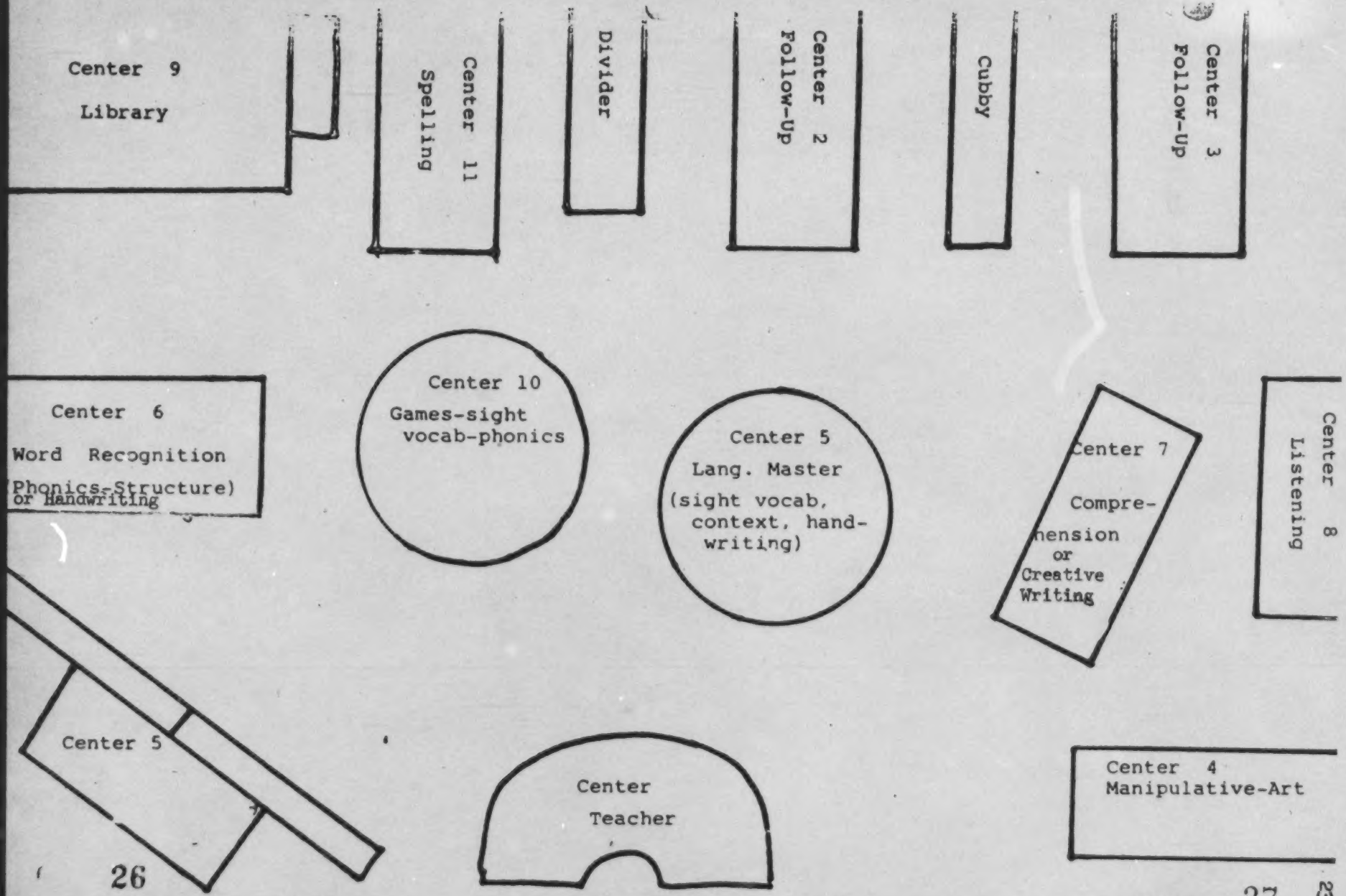
The official opening of the day is signalled by children forming into rows and facing the flag in preparation for the oath of allegiance. The teacher makes no verbal announcement that children should form into lines, and the cue for this formation is given by one student who stands in position with other students following this lead. While the group is still together, the teacher or some of the children preview the different center assignments. The children then go directly to their first scheduled center, according to the schedule in their individual folders. Six of the children come to Center 1 to work with the teacher, while the others work in groups of 3-4 around the room. (See the room map on page 23)

Approximately 20 minutes later, the teacher rings her kitchen timer and the children quickly clean up and within 1-2 minutes are ready to move smoothly to their next center assignment. This rotation continues at about 20 minute intervals through 6 sessions, with one longer intermission for recess in the playground.

Work at all the centers supports the reading program, but the teacher is present only at Center 1 where the direct teaching of comprehension takes place. Elsewhere, the children work on their own at assigned tasks, free to talk to each other and seek peer help as long as the talk is about the assigned work. On rare occasions, children from other centers approach the teacher at Center 1 with a question, but that is rare. Intermittently, the teacher looks up from Center 1, especially while the children in her group are reading silently, and occasionally she may remind children at another center to get back to their work-"Are you talking about work at Center 11?", but that is rare too.

When the last group finishes at Center 1, morning cleanup begins, and the teacher reads a book or sings a song with the children as they finish.

At first glance, this KEEP classroom does not look very different from typical primary school classrooms elsewhere, at least not different enough to account for the large change in children's achievement. But the differences are there, both in the reading lesson at Center 1, and in the social organization of classroom life.



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FIRST GRADE CLASSROOM

DIRECT TEACHING OF COMPREHENSION*

What KEEP calls "the direct teaching of comprehension" takes place at Center 1. For any one child, this is only a 20-25 minute period of teacher-directed work each day. For the teacher, it is a series of five or six small group lessons, one after the other, with only a minute or two of transition and one recess period between them. To the KEEP staff, it has been the focus of extensive research and is now considered a critical element in raising Hawaiian children's reading achievement.

According to KEEP philosophy, comprehension is best taught through discussion of the text. The KEEP approach stresses the importance to comprehension of building connections between existing experience and the new information available in the text. The key to establishing the connection is teacher-led discussion in small groups of students.

In overall outline, the KEEP lessons are nothing new. The structure of directed reading lessons is "at least as old as the McGuffy readers" (Beck et al, 1979) and traditionally has 4 phases:

Preparation for reading	Reading	Questions and discussion	Skill development

But whereas in many programs "there seems to be a trend to reduce the amount of oral preparation for reading in response to a perceived need to provide more reading in the reading class" (Beck et al, 1979), KEEP has expanded the role of discussion both before and after reading. They have retained the traditional sequence, while changing both the content and the form of each phase in ways that fit current theories of reading comprehension and that also are

* According to Tharp (personal communication, 9/81) the KEEP staff has decided to change the description of their program from "direct teaching of comprehension" to "effective teaching of comprehension" because of confusion about KEEP's meaning of "direct" vis-a-vis the meaning in other programs. Because all of the existing literature on KEEP uses "direct", we have retained it throughout this report.

more responsive to the abilities as well as the needs of Hawaiian children.

The first 3 phases of the KEEP lessons correspond to the first 3 phases of the traditional model, but at KEEP they're called Experience, Text, and Relationship (ETR). These changes in name are not trivial; they signify how KEEP believes comprehension can be taught:

E -- Start with a leading question about the topic of the upcoming text that will make contact with the children's previous experience; encourage informal, multiple participant discussion. Teacher questions during this discussion cannot be scripted. All questions after the first are based on the teacher's evaluation of the children's answers and her comprehension goals for the lesson. It is the teacher's skill that, moment-to-moment, draws out the children's knowledge, clarifies misconceptions, and reinforces concepts she knows to be important in the text to come. For example, the preparation for a story called "Freddie finds a frog" included discussion about what you would do with a frog, what frogs taste like, how frogs move, how it feels to touch a frog and where frogs are found.*

T -- Ask the students to read the text silently, always for some stated purpose - e.g. "I want you to find out what Mr. Mays says he would do with a frog." Children read aloud to provide answers for such questions, to support their opinions with evidence from the story, and generally to support their arguments

*The transcript of this reading lesson, taught by Claire Assam, is available from KEEP.

on some controversial point. Sometimes during the Text phase the teacher will realize that the children are having a problem in comprehending a word or concept - as when the word bait was encountered while reading "Freddy", and she will recycle the discussion back to Experience.

R -- Discuss with students the meaning of the text, and the relation of the text to their previous experiences. The discussion in both T and R is relatively more formal than in E; and children's responses are more individual.

Teachers generally receive little training in conducting discussions of the kind ETR requires, and so most teachers will need on-the-job help. In Appendix C we include examples of such help that were shown to us by members of the KEEP staff: a more extended description of the ETR sequence; a clear and concise set of guidelines for planning an ETR lesson; and a set of visual models for thinking about text structures that one demonstration teacher was using to help children understand conceptual relationships through blackboard diagrams. All of these support materials assume that the teacher can operate as a "general problem-solver," and use her professional skills to "fill in the blanks".

The training and curriculum development staff spend considerable time looking for or developing such materials, and they are evidently used extensively in KEEP teacher training. There seems to be nothing unique about the individual pieces, many of which are borrowed from outside sources. What is notable is that these materials are all parts of a systematic and intensive teacher training effort.

While the KEEP reading program emphasizes "the direct teaching of comprehension", it also includes instruction in word recognition skills

at Center 1, generally at the beginning or end of lessons, but also as the opportunity arises during the Text phase. This instruction is then reinforced by independent activities at the other centers. Appendix B summarizes the overall design of the Kamehameha Reading Objective System (KROS). One specific conceptual link between the general KEEP focus on comprehension and the decoding strand is that the phonics instruction is analytic, not synthetic - involving the children in analyzing the components of known words rather than starting from meaningless elements and blending them into a meaningful whole. While at first glance KROS may seem like many other scope and sequence management systems in use around the United States, we agree with the KEEP staff that it differs from them in including more emphasis on comprehension and more specific suggestions for comprehension instruction.

KEEP maintains that any basal reading series with stories rich enough to be the subject of extensive discussion can be used with KROS. It initially used the Houghton Mifflin series and is in the process of examining three similar series. How much work might be involved in implementing KROS with other reading series or trade book selections we do not know.

Alternative interpretations of success

Depending on the theoretical persuasion of the observer, alternative explanations for the success of ETR come to mind. We can only point out some of these alternative perspectives for continued discussion and research; and then raise questions about two potential problems.

Time-on task. To some educational psychologists, KEEP's success might be explained by quantitative evidence of high time-on-task behavior. Here

a comparison of two separate time-on-task analyses conducted by the KEEP staff is illuminating. One analysis is Au's (1980) experimental comparison of 20-minute lessons taught to the same group of children by a KEEP and a non-KEEP teacher. Her video-tape analysis shows that children's "reading engaged time" reached 80% in the KEEP teacher's lesson, but only 43% in the non-KEEP teacher's lesson. And differences of similar magnitude were found on other proximal indices such as the number of children's reading responses, and number of idea units per minute during the discussion parts of the lesson. But time-on-task comparisons also exist between the older, more traditional phonics, KEEP program and the new comprehension program. According to Tharp, both produce unusually industrious children, as indexed by time-on task-rate, which has ranged from 80% to 90% for both cohorts, old and new. Thus high time-on-task may be a necessary feature of successful programs, but it cannot be sufficient. Qualitative characteristics of the "task", the focus of children's attention, must matter as well. Moreover, the critical changes in the KEEP program, whatever in fact they were, could not have been derived from any inferences from these quantitative data alone. The quantitative measures can help explain success of the new program after the fact, but they could not have guided its design.

Cultural congruence and "balance of rights".

To cultural anthropologists, an especially interesting feature of the ETR lesson is the cultural congruence in patterns of interaction at Center 1 between community and school.

Historically, the focus on comprehension was a deliberate decision, made when behavior modification techniques combined with a heavily phonics-based reading program produced attentive, industrious children but continued low reading achievement. According to our understanding of the program's evolution, this deliberate change in lesson content then brought with it a serendipitous change in discourse form. When comprehension was stressed in small group discussions of the stories to be read, these discussions gradually took on an overlapping turn structure similar to the overlapping speech that is common in ordinary Polynesian conversations, and especially in the stylized speech event called "talk-story". In talk story, a story is co-narrated by more than one person, and the speech of the narrators is also overlapped by audience responses. The KEEP children were familiar with this structure in their lives outside of school, and evidently gradually introduced it into the story discussions at school when the change in content of the lessons, and a teacher who was willing to relax her turn-taking control, made it possible.

Later, the Center 2 interactions were analysed by the KEEP research staff as a bicultural combination of indigenous conversational style and teacher-guided content, and they became an important feature of the KEEP reading program. The most detailed analysis is by Au:

> We will argue that there must be a balance between the speaking and turntaking rights of the teacher and children, if a participation structure or a lesson is to be related to higher levels of productive student behavior. We will refer to this idea as the balance of rights hypothesis and suggest that it can serve as a conceptual basis for making specific predictions about the effects of social organizational and sociolinguistic variables on academic achievement...
>
> If the teacher exercises her authority by dictating the topic of discussion but allows the children to have some say about the roles they will assume as speakers and when they

> will speak, the cognitive and instructional focus of the lesson is more readily maintained.
>
> Disagreements between teacher and children were centered on interpretations of the text, and not on procedural matters. (Au, 1980, pp. 149, 160, 171.)

In the KEEP program, the "balance of rights" or "shared control" involves the relaxation of turn-taking rules to allow children to speak out without being called on, and to chime in even when another child is speaking, as long as the content of their talk is relevant to the teacher-chosen topic. Other modifications of traditional lesson structure may be needed in order to achieve a comparable shared control for other groups of children (cf Philips, 1972, and Piestrup, 1973).

The question of how specific such cultural congruence needs to be assumes considerable practical importance as the KEEP program is implemented in public schools with non-Hawaiian children and a more ethnically mixed teaching staff as well. For example, we were told in one public school of a Filipino child who was not participating in the Center 1 discussions. When the teacher asked a Filipino aide what might be the problem, the aide suggested that in Filipino culture children are not supposed to speak unless they are sure of the answer, and so the child felt uncomfortable in the speculating, hypothesis-generating interactions of the KEEP lessons. Either the teacher or the aide then tried to explain the school expectations to the parent, and this somehow seems to have helped.

When we were told that the majority of public school teachers in Hawaii are of Japanese background, and that traditional Japanese norms of behavior stress listening attentively without interrupting, we wondered

if such etiquette rules would make it harder for Japanese teachers to conduct lessons that conform to the KEEP model in interactive style. More generally, if cultural incompatibility makes learning difficult for children, does it also make teaching difficult for adults? In fact, a number of KEEP's own trainers and demonstration teachers are Japanese-Americans. Evidently adults can learn a new interactive style with enough support and encouragement.*

Continued research that tracks the KEEP model as it is implemented in more varied settings can help answer important questions about cultural similarities and differences and their relevance for school program design in Hawaii and beyond. The most general implication of this interpretation of KEEP's success is that in its classroom practices, KEEP offers hope for

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*Interestingly, there is one report that modern education in Japan seems to be veering in a direction not unlike processes we observed in KEEP. An American mathematics educator recently returned from 4 1/2 months of intensive study of classrooms in Tokyo where math achievement is generally high across social classes. Aided by a Japanese-speaking research assistant, he has described classroom interactions in teaching mathematics, with detailed notes on pedagogy. He reports that today mathematics is treated more as a conceptual, theoretical subject than as a skill to be drilled. Class discussion is a main activity, having both formal and informal aspects, akin to phases of comprehension instruction at the Center. The teachers focus on the social aspects of learning and on fostering students' discussion skills to overcome timidity, passivity and resistance to participation in group discussion. The teacher's concerns about classroom "etiquette" are expressed in their treating children with respect, giving them clear responsibilities and directions, and establishing helping relationships among them. The purpose of instruction is to integrate intellectual and social development in ways that prepare the child for the cognitive demands of problem solving. In these classrooms, although group recitation is used, little was seen of the rote drills in counting numbers that are so common in American schools. (Personal communication, Professor Jack Easley, University of Illinois, Bureau of Educational Research, September 3, 1981).

more widespread sensitivity to children's cultural and linguistic backgrounds, and for utilizing these resources for positive educational effect.

Cognitive value of the ETR discussions.

The heart of the Center 1 lesson is teacher-led discussion that is intellectually much richer than the usual reading lesson fare. More than one interpretation of the processes by which these discussions contribute to reading comprehension can be suggested.

Recent theoretical research on reading (summarized in Spiro et al, 1981) emphasizes the active work that readers must do in constructing for themselves both the literal meanings in the text and the inferences that go beyond the words themselves. A critical resource in constructing meaning is the world knowledge that the reader brings to any reading task. Discussion in the Experience Phase of KEEP lessons affects this knowledge base in two important ways: for the children, it evokes and brings to the forefront of consciousness those concepts that will be most useful in comprehending the text to come; for the teacher, it displays children's concepts so that misconceptions can be rediscussed and missing ideas introduced.* Thus the lessons embody a specific instructional strategy for guiding children through a series of assimilations and accommodations between their existing knowledge and the new text material.

Another cognitive interpretation relates the Experience phase of the

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*It is interesting to note similarities between the KEEP program for young children and Paolo Freire's method of teaching adults to read as adapted in the Nicaraguan campaign (Cardenal & Miller, 1981). In both, dialogue about ideas precedes phonic or syllabic analysis. And in both, the dialogue draws heavily on the readers' personal experiences.

lesson to another E- Exploration. In encouraging the exploration of ideas at the beginning of the lesson, prior to more focused problem-solving questions directed to the Text content, the KEEP lessons provide a time for generating potentially relevant responses that is similar in function to instructional strategies in other non-reading programs - e.g. Gattegno lessons with Cuisenaire rods, Karplus lessons in the Science Curriculum Improvement Study (SCIS), and Bruner's discussion of the cognitive value of exploratory play.

In the Text and Relationship phases, the teacher-child interactions may be educationally functional in a different way. Whereas in E the resources brought to the discussion come from the children's real-life experiences, in T the resources needed to decide which speculations and predictions about the story are correct must come from the text itself. Reading is thus motivated by interactional demands. As Stephen Boggs, a pre-KEEP ethnographer in Hawaiian communities told us, in the KEEP program the information gotten from the text is used in something socially valuable - conversations with an adult; Hawaiian children initially have a narrow window on education, and that window has to be opened and widened through relationships. Moreover, the sequence of collaborative problem-solving preceding and contributing to individual problem-solving fits Vygotsky's theories (e.g. 1981) of the social origin of higher cognitive functions.

If interactionally motivated reading does have these values, then curriculum planning for more advanced readers might best be seen in terms of interactional resource continuations of language experience lessons rather than subject matter continuations. That is, a wrong way to think

of how to capitalize on the strengths of language experience-based reading is to try to arrange for reading materials that only gradually get more distant from the children's experiences; a better way to think about them might be to figure out how reading lessons organized around non-child produced texts might incorporate the functional and motivating interactions that language-experience programs provide.

The level of teacher questions throughout the ETR discussions has been suggested as a contributing factor by another observer, Jana Mason (personal communication, 1981). Although reading texts often urge teachers to ask more "higher level questions", observational studies show such questions to be rare. Students give short factual answers to the low-level factual questions posed by the teacher (Dunkin & Biddle, 1974, Ch. 10; Gall, 1970). Gage has suggested that pressures on teachers to maintain a lively pace in order to keep everyone's attention and not lose group control is one influence pressing teacher questions back to the "lowest" level. Mason suggests that the KEEP dialogue, with its acceptance of simultaneous child talk, makes possible a combination of fast pace with more probing teacher questions and longer, more divergent child responses.

Potential problems.

Hawaiian Creole

One of KEEP's initial hypotheses about Hawaiian children's problems in school focused on their Hawaiian creole language. But research to test this hypothesis found that children's achievement was more closely related

to general language facility than to use of a specific language variety, and that instruction did not have to be "creolized" in any way (See references on p.11) KEEP teachers are trained to use ETR lessons as opportunities for language development - for example, by restating children's ideas in standard English, and encouraging children to elaborate their statements (Speidel, 1981). In general, they seem to do successfully what many researchers have recommended to other teachers whose children speak some other variety of English - e.g. Black English vernacular: accept the children's language and focus attention - your own and the children's - on meaning, not forms. As we understand it, KEEP's primary adaptations to date have been more cultural and less narrowly linguistic, and that in itself may be an important model for educational planning in other communities.

Yet we can not assume that language variation itself will not ever be a problem as KEEP extends its program into the intermediate grades, as Vera John Steiner reminded us after her visit to KEEP (personal communication, 1981). There is some evidence that KEEP children develop a greater proficiency and fluency in standard English - either from reading or from opportunities for oral language (Speidel, 1981). But as the text structures that children are expected to read become more complex, and as children themselves are expected to do more writing, the KEEP team may need to return to considerations of features of Hawaiian/Creole.

Fortunately, linguistic knowledge about Hawaiian creole is available in Hawaii, in the work of Derek Bickerton and others. But using this

knowledge in designing effective instruction is a separate research and development matter. Recent experience in and around the Ann Arbor "Black English" case (Whiteman, 1980) shows how wide is the gap between knowledge of language variation and improved education. KEEP's work can narrow that gap for us all.

Narrative v. expository texts

In addition to knowledge about the world, readers need to bring to any reading activity some understanding of the structure of the particular kind of text being read. By structure here we mean the ways in which particular kinds of sentences are put together in paragraphs and larger units of text. To obtain some indication of the comparative competence of KEEP children in comprehending narrative and expository texts, we asked the 3rd grade teacher at the KEEP Lab school to test two of her children with passages from the Interactive Reading Assessment System (IRAS) (Calfee & Calfee, 1981)*.

Both students were girls, one from the upper quartile (reading level of 4.1) and one from the lower quartile (reading level of 3.1) the third grade class at Ka Na'i Pono. Each child read two passages selected to be appropriate to their reading level. One was a narrative, and the other was an exposition. The text structures for the narratives are variants on the story grammar proposed by several researchers. The two expositions are descriptive passages which are among the simplest forms. Each begins with an introduction of the object being described, followed by a listing of the descriptive characteristics.

* The teacher's gracious and carefully executed response is an example of the open, inquiring and cooperative spirit we found throughout KEEP.

The students read each passage aloud, with corrections and prompts by the tester when necessary; neither child was altogether fluent, but both successfully made their way through each of the passages. The high-quartile student read more quickly than the low quartile student (reading times are shown below each passage on the following tables). The expository text took longer than the narrative for the low-quartile reader; there was no difference in texts for the high-quartile reader. After reading the text, the sheet was taken away and the student was asked to "tell me about what you just read." General prompts and encouragements were given as necessary, and specific questions were asked after the child seemed finished with the "free" recall. In Tables 1 through 4 the protocols are laid out in detail. The four tables are ordered with the low-quartile student first and then the high-quartile student, first the narrative and then the expository texts. At the top of each table is the designation of the student and the text displayed in that table. Immediately below is a row of headings that is the key to the organization of the protocol. At the far left are entries for the elements of the structural analysis of the text, and next to that is the text itself.* There is then a column

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*At least one early reader of this report commented on the cultural irrelevance of the second text dealing with snow. Snow is at times visible on the high mountain peaks particularly on the big island of Hawaii but whether it is or isn't familiar, we remind other readers that in using a national basal series, KEEP does not select its material on a cultural relevance criterion, and so neither did we.

giving a summary rating of the student's free recall of the element, beside which is the actual free recall protocol. Probe questions are shown for each element; these questions were asked if the students did not clearly mention the element during free recall. The rating of probe responses is in the next column, where "NA" indicates that the probe question was not asked. The actual responses to the questions are in the far right column. Capitalized words are those judged to be of central importance in the text or the response.

TABLE 1. Low quartile student=narrative

Structural Analysis	Text	Rating Free Recall	Free Recall Statements	Probe Questions	Probe Rating	Probe Statements
Setting$_1$	JOE and his DAUGHTER SUE were FISHING at the LAKE.	+	T - Tell me about the story you just read	How did the story begin? (Why did Joe want to find another spot to fish?) (What did he do then?)	NA	
			S - It was about JOE and his DAUGHTER went FISHING			
Initiating event$_1$	They were THERE for an HOUR and had NOT CAUGHT and FISH.	++	and they stayed THERE for HALF AND HOUR and they DIDN'T CATCH ANYTHING			
Goal$_1$ / Attempt$_1$	JOE WANTED to find a BETTER SPOT so he started to WALK AROUND the LAKE	+	So JOE WALKED AROUND the LAKE	What happened when Joe started to walk around the lake? (What did the fishermen tell him?)	NA	
Outcome$_1$ / Initiating event$_2$	He PASSED a few FISHERMEN NEAR the DOCK. They TOLD HIM that they were CATCHING LOTS of FISH	++	and he PASSED some FISHERMEN and the fishermen said there's PLENTY FISH over there.			
			T - What else can you tell me?			
Reaction$_2$	JOE was EXCITED to hear the news	+	S - Well, one fisherman said that he . . . JOE was EXCITED			
Attempt$_2$	and he STARTED BACK to GET his DAUGHTER	?	T - And what did he do?	What did Joe do after he talked to the fishermen?	NA	
Setting$_2$	Meanwhile SUE was FISHING by HERSELF	?	S - He caught a . . he GOT his fishing pole, and he brang his DAUGHTER and HE FISHED and SHE FISHED			
Initiating event$_3$	She got TIRED and FELL ASLEEP with the pole in her hand	0		What happened when Sue was fishing by herself?	+	S - She FELL ASLEEP
Development$_3$	She slept until she FELT a strong TUG on her line	0		What woke Sue up?	++	S - When a STRONG TUG, pull . . . came from her LINE
Reaction$_3$	She was STARTLED to find that the fishing ROD was being PULLED INTO the WATER					
Attempt$_3$	She RUSHED INTO the LAKE just as her FATHER RETURNED	0		What did Sue do as her father returned?	0	S - She grabbed her pole and she went . . .
Outcome$_3$	Then she GRABBED the fishing POLE and PULLED it OUT of the water	0		What did Sue do (. . . when she ran into the lake?)	+	S - She GRABBED her POLE and she WENT to the WATER
Resolution	BOTH Joe and Sue were AMAZED to discover an enormous FISH hooked ON the LINE	0		How did the story end?	+	S - By Joe's sister caught an ENORMOUS FISH
						T - Very good . . . thank you

Reading Rate 74.6 wds/min

Recall Rate 83.8 wds/min

TABLE 2. Low quartile student=expository

Structural Analysis	Text	Rating Free Recall	Free Recall Statements	Probe Questions	Probe Rating	Probe Statements
Introduce object	There is a BIG OLD TREE in the YARD outside my WINDOW	+	T- I want you to tell me about the story you just read . . tell me whatever you can remember . . how did it start?			
			S- It started when someone was talking about a TREE . . .			
Shape	It is STRAIGHT and TALL and looks LIKE a CONE. The BRANCHES at the BOTTOM are WIDE and FULL.	0	and she . . the person was talking about the tree . was telling . . telling . . telling how it looked like and how she thinks about it.	What shape is the tree What are the bottom branches like	+? 0	S- Tall T- What else? S- TALL and STRAIGHT S- NEEDLES
	The tree GOES way ABOVE the ROOF of my house. At the TOP it is NARROW and comes to a POINT.	0	T- Can you tell me more?	How high does the tree go?	+	S- by the ROOF
			S- She . . she . . she liked . . she tells where um how it grows . . how it um grows . . when the rain comes . . then she tell some um um some leaves go up and she tell about the weather and . . .			
Detail	The green LEAVES that cover its branches are NOT REALLY LEAVES at all. They are SHARP and POINTED and make me think of NEEDLES	0		What are the leaves like?	0	
Color	The tree in my yard is ALWAYS GREEN. In WINTER the OTHER TREES LOSE their LEAVES. But even when SNOW FALLS and it is COLD I can look at MY TREE and think of SPRING	0		What is the tree like in winter?	+?	S- There's SNOW, leaves, . . and you can see the top T- There's snow on it and you can see the top of the tree

Reading Rate	Recall Rate
61.1 wds/min	74.2 wds/min

TABLE 3. High quartile student-narrative

Structural Analysis	Text	Rating Free Recall	Free Recall Statements	Probe Questions	Probe Rating	Probe Statements
Setting	The moon had just risen as JAN looked toward the old deserted house.	0	T- OK thank you . . . I want you to tell me as much as you can remember about the story . . just tell me what you can	How did the story begin? (Why were Jan and Ellen meeting by the old house?	+	When ELLEN was WAITING for JAN by her house, to see if the house was HAUNTED
$Goal_1$	She was WAITING for her FRIEND Ellen. Together they PLANNED to FIND out IF the HOUSE was HAUNTED	+	S- When the girl wanted to see if the thing was HAUNTED or not, she . . them two was going to see if the house was haunted.			
Initiating $event_1$	When ELLEN ARRIVED the two friends began to WALK nervously UP the PATH. A strange SHADOW seemd to FALL ACROSS the WINDOW next to the porch	+	If they were then they'll just leave them alone, but then they found out the thing was . . oh yeah, wait a minute . . they went inside the house, then she heard a sound, no a SHADOW come toward them . . .	What did the girls do right after Ellen arrived? (What happened as they walked up the path?)	+?	The WENT to the HOUSE. They was walking to where the house was . . the haunted house is . . . The saw a SHADOW
$Reaction_1$	Both GIRLS were SCARED, but they pretended not to notice	+				
$Attempt_1$	Then as ELLEN HELD the FLASH-LIGHT, JAN anxiously pushed OPEN the DOOR.		and then after, she . . Ellen or Jan got SCARED			
$Outcome_1$	Once INSIDE the house they were STARTLED to HEAR a peculiar SCRATCHING SOUND	+	so . . then . they just went up in front of the house to the PATH	What did the girls hear when they entered the house?	+	A SCRATCHING sound
$Attempt_2$	ELLEN flashed her LIGHT all around	0	then after, they found out that that was a CAT . . No, they heard a a . . Jan heard one SCRATCHING sound	What did Ellen do when she heard the scratching sound?	0	It was Jan . . Jan got scared, and she . . she was so shocked should couldn't scream . . cause she was too scared
$Outcome_2$	but she could NOT FIND where the SOUND was coming from	0	so she got SCARED, so the thing was COMING TOWARD her LEG and the thing was right next to her leg and scratching, then after	Did they find where the sound was coming from?	+	Umm . . umm . NO they just went turn around . I think was from the room cause couldn't be inside wherever they was because . . they couldn't see um . . Ellen make the whole thing around the room, they couldn't . . they couldn't see where it was coming from, so they just looked around that haunted house.
Initiating $event_3$	But it seemed to be COMING TOWARD THEM. Suddenly JAN felt SOMETHING RUB against her LEG.	+	she couldn't, she was too SHOCKED to tell Ellen	What happened to Jan?	NA	
$Reaction_3$	She TRIED to SCREAM but was too SCARED to make a sound.					
$Attempt_3$	She GRABBED EILEN's ARM and stared at her in shock. ELLEN FLASHED the LIGHT her way, and then	+	but then after Ellen, when she, she turned the FLASHLIGHT to the . . um down to her leg towards her . . .	What did Ellen do when Jan grabbed her arm?	NA	
$Outcome_3$	they both REALIZED WHAT was HAUNTING the HOUSE. It was just an old BLACK CAT who had made the house its home	+	then after, she was . . then they realize that nothing was haunted when the cat was scratching . . was a BLACK CAT	What did the girls discover in the end?	NA	
Resolution						T- That's really good . . .

47

Reading Rate
81.1 wds/min

Recall Rate
147.1 wds/min

48

TABLE 4. High quartile student=expository

Structural Analysis	Text	Rating Free Recall	Free Recall Statements	Probe Questions	Probe Rating	Probe Statements
Introduce object	An AMUSEMENT PARK is OPENING in town next Saturday	++	T- All right, thanks . . . I want you to tell me about the story you just read	What is hapening on Saturday?	NA	
			S- . . um had AMUSEMENT PARK was OPENING on SATURDAY			T- OK is that all? I'll ask you some more questions.
Future events	There will be a PARADE, FIREWORKS, and FREE ADMISSION on opening day. More than FIVE THOUSAND PEOPLE are EXPECTED to attend	+	and about 50,000, fifty, no twenty PEOPLE . . seventy people, whatever was going to attempt it and the ADMISSION was FREE	What will opening day be like?	NA	
Past problems	WORK first began on the park TWO YEARS ago. At that time the SITE WAS an UNUSED FIELD It was FILLED with WEEDS and TRASH. Although occasional ATTEMPTS had been made to CLEAN it up, NOTHING had WORKED.	+?	and then the - what's that now - the . . there was a park, no . . the amusement park had some, had PICNICS and FIREWORKS and everything all over . . . but you gotta PAY . . the RIDES are for . . you gotta pay FIFTY CENTS for every ride and . . EXCEPT the ROLLER COASTER	What die the site of the park used to look like?	?	S-..umm . . had bushes . . green bushes and used to have picnic there T- anything else? S- um um no
Past development	SINCE then more than FIFTY RIDES, a PLAYHOUSE, and a PICNIC GROUND have been built. Many TREES and BUSHES also have been PLANTED.	?	T- OK, anything else . . . you remember? S- Yea, had . . people had to clean it up, but they couldn't . . they never had people . . plenty people had to clean that up ... but they must . . lousy jobs and then have one park . . about um um . . then . . oh my . . . I forgot . .	What is the park like now?	+	S- An amusement park T- Can you tell me more about what's it's like?
Future conditions	After opening day, ADMISSION to the park will cost THREE DOLLARS. However, CHILDREN UNDER TWELVE will be let in FREE IF they come WITH an ADULT			What about admission to the park?	+	S- It has all kinda rides and it's fun over there like, well like at Castle Park (an amusement park in Honolulu) Then just like . . small things were not real, like if you go through . . places like, well like Castle Park, like that,. . looked like you make it . . and the same thing golfing . . maybe golf, miniature golf like that
				How much will rides be?	NA	
Future conditions	ALL RIDES will cost FIFTY CENTS, except the ROLLER-COASTER, which will cost a DOLLAR			How much will rides be?	NA	S-Free . . it's free admission but you gotta pay for the rides

Reading Rate
85.4 wds/min

Recall Rate
99.2 wds/min

Now for some general observations. As other research has indicated, narratives are recalled quite well, and in the proper order. Both students remembered virtually every element, and the sequence during free recall was almost errorless. The low-quartile student recalled more slowly than the high-quartile student. The latter made extensive use of a narrative "marker" -- the phrase "then after" -- which may be characteristic of Hawaiian speech.

Recall of the expository passages appears markedly different. Initial recall is poorer, although responses to the probe questions suggest that the students did have an understanding of the basic elements. There is some indication that the narrative format is being used as the schemata for recall ("someone was talking about a tree," and "and then the ... what's that now ... the... there was a park ... no ..."). However, the students seem aware that the text structure is different from what they are used to, in the sense that it is not a story. "Aware" may be the wrong word, because it is not clear that the students are conscious of the different text structures. Nonetheless, there does seem to be a behavioral contrast. Both students recalled the expository text more slowly and haltingly than the narrative -- there were more repetitions and "um ... um."

We present these detailed comparisons not because KEEP children are unusual but because in this respect they are all too typical. Even first graders can comprehend stories, but by the time they leave third grade, they need to be able to comprehend other kinds of texts better than they do. The ability to handle expository text structures comes less from everyday experience and more from formal education. Yet the basal texts used by KEEP,

Houghton-Mifflin, contain relatively few expository passages, and they were not the worst in this regard:

Percent of Fiction and Non-Fiction Selections in the Second Half of First Through Sixth Grade*

	Houghton Mifflin		Ginn	
Grade	Fiction	Non-Fiction	Fiction	Non-Fiction
1.2	81.8	18.2	87.0	13.0
2	77.5	22.5	86.9	13.1
3	75.0	25.0	78.3	21.7
4	54.3	45.7	85.7	14.3
5	66.0	34.0	85.2	14.8
6	54.5	45.5	53.3	46.7

From this perspective, the problem of comprehending non-narrative texts will become ever more serious in the intermediate grades. Others who want to learn from KEEP's experience with this approach need to consider two problems: The first is the appropriateness of the text. It is essential for any teaching staff to review text materials for their range of topics and structures as well as their interest. While we understand KEEP's use of basal readers in order to minimize the changes necessary in public school practices, more substantial change away from basal readers may become necessary.

The second problem is one that no one, to our knowledge, has solved. The ETR approach builds on the assumption that the teacher can analyze the students' natural language, can analyze formal structures of the text, and can move a small-group discussion from the informal level of conversation about personal experiences and personal knowledge through a focus on the text to a more formal level of text-oriented discussion. Here we have a powerful model of how to teach comprehension. For the concept to become a

*from Beck et al, 1979, p.15.

reality, it is essential that the teacher have a full and articulate understanding of all parts of the system. But pedagogically useful analyses do not yet exist for non-narrative structures. We believe this is a serious challenge to reading educators that is posed especially sharply by KEEP's success to date.

SOCIAL ORGANIZATION OF THE CLASSROOM

Just as interesting as the change in the reading program are the changes KEEP has made in the social organization of the classroom - changes from Hawaiian public schools and from most other public schools as well. The social organization of KEEP classrooms has evolved over years of experimentation and formative research into a complex integration of strategies for teaching children the behavior appropriate in formal education settings, and for adapting the organization of those settings to the culture of the children. (Jordan, 1980 a and 1980 b).

Teaching children appropriate classroom behavior

Initial socialization of children to KEEP classrooms (particularly kindergarten) continues to follow a deliberate behavioral management plan which teachers are trained to carry out. (An interesting finding has been that teachers must resocialize children to classroom practices at the start of each school year, even when children have been in a KEEP classroom the year before.) During the first days of the school year, as

children learn or relearn the norms of KEEP classroom behavior, teachers reinforce desired behavior with accentuated praise, smiles, hugs and other signs of overt affection. Reinforcement at first is given liberally; students are praised enthusiastically for complying with the most minimal instructions. Gradually as children learn the rules for classroom behavior, the accentuated reinforcement is withdrawn. In addition to social reinforcement, teachers use "modeling" as a technique for eliciting appropriate behavior: demonstrating to children a desired behavior, or pointing out and praising children who are already doing it.

A detailed picture of the first four weeks of the school year is presented in Appendix C: The goals for children and teacher in the KEEP lab school first grade (Vogt, n.d.). Note especially that centers, and the formats for particular kinds of written work to be done in them, are gradually introduced and the necessary social and academic behaviors carefully taught. KEEP teachers recognize that ensuring children's understanding of the directions (formats) for academic work is an important part of teachers' classroom management and of children's socialization into school.

Adapting the classroom to the children: learning centers, peer helping and child responsibility.

While one group of children is engaged with the teacher at Center 1, the rest work independently in small groups at learning centers around the room. They are assigned to particular centers according to an individual daily schedule, and work on individual assignments set by the teacher.

Although grouping at Center 2 is homogeneous by reading level, in many KEEP classrooms grouping at the other centers is deliberately heterogenous. Heterogenous grouping is more consistent with the character of sibling work groups outside of school and may reduce the concentration of potential "troublemakers" in lower reading groups; but homogenous routing of the children through the centers lessens the assignment work load for teachers. It is not clear how this grouping variable affects the children's interactions about their work, and both heterogeneous and homogeneous arrangements have been used with success at different sites.

The nature of the work assigned in the centers also seems to contribute to their effectiveness. While children are free to socialize in these centers and to work at their own pace, as long as the work gets done, the academic business to be conducted is well-defined by the assignment materials. In the beginning levels of the reading program, a limited number of formats are used in these materials, each of which has been taught to the children earlier in the year.

To capture the flavor of peer interactions around assigned work, here is one assignment and one team member's observations of how it got done:

1. There are lots of _____ in the lake.
2. Let's _____ our fishing poles!
3. "This is fun," _____ father.
4. I _____ to fish.
5. I _____ to come _____ again.

with	fish	like
said	you	father
here	get	what
will	want	

> In one learning center, two children were working on copies of the same worksheet. It has 5 sentences that had six blanks distributed among them and 11 words at the bottom that could be used to fill in the blanks. A third child, doing a more advanced worksheet was occasionally a helpful resource. The most interesting interaction, however, was between the two working at the same level. There was considerable discussion about each sentence (task). The children talked about the words at the bottom that might be used to fill the blanks, and about other words in the world that might be used. Some of the versions of the sentences produced in the discussion caused much hilarity. For sentence 5, I counted eight different oral sentences and later found that one of the children had written down a ninth. The niceties and nuances of their discussions and jokes makes it difficult for me to remember they were first graders and not even in the top reading group. What they wrote down, the worksheet product, even when correct was a very poor indicator of the sophisticated practice they engaged in.
>
> I was particularly drawn to the example because of its contrast with how peers work together in other communities. I've seen other children divide up the 5 (or 6 if by blanks) tasks among themselves and then engage in non-task interactions. These KEEP children were multiplying the task, not dividing it. I wonder whether this "extra practice" at the nominal task is related to the socializing practices of the Hawaiian children's peer work group. I wonder whether there are implications for differences in the kinds of peer learning center activities that should be planned for different child populations.

It is clear that here, as in Center 2, reading provides a resource for social interactions, in this case among peers. The children have short but spirited discussions among themselves about what they read, and they refer to segments of the written text to prove their points and keep the interaction going.

With such an organization, a lot of written work is produced each morning. KEEP has an unusual philosophy about correcting this work. On work with significant errors, the teachers might write "See me" and arrange to meet individually with the children to talk over their work. She may list incomplete written work on the board and keep children from recess to complete it. But the emphasis in KROS is on checking for completion of

worksheets and sampling the level of performance rather than on correcting each sheet to be returned to the children. Various rationales can be suggested for this feedback philosophy: an impossible overload on teachers if each worksheet had to be corrected; an understanding that adults don't monitor all the details of children's work performance outside of school; a realization that, as the above observation shows, completed worksheets are not a valid record of what reading activity actually took place and what learning may have resulted. In their pedagogy of correction KEEP practices call into question our usual compulsions.

Another situation in which the child peer group takes unusual responsibility is in setting up the classroom before school and cleaning up at the end of the day, as was described in the typical day. In the narration for the film "Coming Home to School", Lynn Baird Vogt explains how this developed in her classroom:

> To make the classroom more like home, I backed off from assigning chores and let the children organize the set-up and clean-up each day. The more I BACKED OFF, THE MORE THEY TOOK ON ... I never gave directions or assigned anyone a job. I just modeled a set routine each day and allowed them to join in. They began to anticipate each step and get each task done, even before I could get to it. Now they follow very complex lesson plan sheets and put out all the assignments and even figure out what equipment and supplies will be needed.

It seems certain that children's participation in provisioning the centers for the day's work helps the children feel that school is "theirs". But a more cognitive benefit is also possible. Much work on comprehension and on social negotiation suggests that "pre-organizers" are a useful resource. As the children help the teacher set up the learning centers for the day, it is possible that certain materials and certain interactions

are available as pre-organizers for that day's academic activities. The first graders we observed helping the teacher one morning seemed to orient some of their comments and questions to that end; these comments and questions seemed less related to an immediate context of "getting the room set-up" and more related to the larger context of "school day" and specific center activities within it.

At the time of our visit, this set-up activity, like heterogenous or homogenous grouping, seemed to be a variable feature of KEEP classrooms. But Au reports (personal communication 9/81) that KEEP is trying to implement it everywhere.

Anthropological research and the improvement of education

One focus of our team visit was to try to understand the roles of anthropological research in KEEP's program development. Most ethnographic research on cultural incompatibilities between home and school - from Philip's now classic (1972) study on - has documented problems; with the exception of KEEP, there are no reported cases where ethnographers have stayed to participate in the development of alternative pedagogy that solves, or at least ameliorates, those problems. Members of our team have believed and argued that anthropological insights are necessary for improved education for minority children; and so we wanted to understand not only what insights KEEP had incorporated, but also what had been the ethnographer's roles.

Anthropological insights. The content of the anthropological insights are a matter of record. For example, ethnographic research on a Hawaiian community on Oahu by Gallimore, Boggs and Jordan (1974), and Gallimore and Howard, 1968) found that learning and teaching of skills in everyday familial and community experiences "... involved a great deal of modeling, observation, imitation and mutual participation by teacher and learner in the skill to be learned, and relatively little teaching through exclusively verbal directions or explicit role statement" (Jordan, 1977). Other ethnographic research on Hawaiian children's behavior at home (cited in Jordan, D'Amata and Joesting, 1981) has stressed the values children learn in problem solving as a cooperative, social activity. Children learn to accept responsibility for household chores and child care by observing

such behaviors being modeled by their older siblings, and they negotiate responsibility and scheduling of chores among themselves with parents playing only an indirect role in supervision.

Jordan (unpublished manuscript) summarizes Hawaiian children's social life and everyday problem solving at home:

> 1) In their home environment, Hawaiian children spend a great deal of time with other children, as part of a group of siblings or as part of a companion group of peers and near-peers. 2) In particular, they are accustomed to working in a group context, most often with siblings, and many of the tasks they perform are shared tasks on which the members of the group cooperate. 3) The tasks for which children are responsible are important ones. 4) Children often work without any overall supervision of adults; Hawaiian children are expected to be able to carry out their responsibilities without intruding upon adults for help or direction. The group of children is expected to have within itself resources of competence sufficient to tasks that are assigned to it. 5) Hawaiian children acquire skills and knowledge by participating with more competent children in the activities of sibling or companion groups. 6) This means that they learn to learn from a variety of people and that one of their main sources of help, skills, and information is peers or older children.

The socio-cultural values developed by Hawaiian children away from school present potential conflicts with traditional schooling. Gallimore, Boggs and Jordan (1974: 262-4, as cited in Jordan D'Amato and Joesting, 1981) summarize some of these potential conflicts:

> 1) Hawaiian children measure success in terms of contributions to the kin or peer group. Task performance and completion are valued as contributions to the needs of the group. In the classroom, individuals accomplishment is valued and ranked above cooperative or helping efforts; competition is valued over cooperation, in practice, if not in theory.
>
> 2) Because of the "shared function" organization of the family involving role flexibility and joint responsibility for family tasks and obligations, Hawaiian young people are accustomed to

flexible rearrangements of work schedules and responsibilities, worked out within the sibling group. In school, contingencies are fixed on the individual and work can not normally be shared or assignments shifted to meet personal interests and needs.

3) Sharing functions allows young people a measure of independence accompanied by a good bit of felt autonomy and competence, even for children of 6 or 7. Adult supervision is indirect and mediated through older siblings. In school, adult supervision is characteristically direct and intrusive and even adolescents are treated as much less competent than is the case in the home. This contrast is especially sharp for boys, who even by the time they are in first grade have begun to separate themselves from women and to resist the authority of women under some conditions.

4) When problems occur, Hawaiian children tend to turn to siblings and peers for help and to disengage from displeased adults. Teachers when difficulties occur, typically want to confront the issues directly and negotiate with students. Hawaiian students have been taught that confrontation and negotiation are not acceptable behaviors to display toward elders, and they try to avoid confrontation.

5) In the family, the child depends on and learns from siblings. At relatively early ages, peer affiliation becomes important. Correspondingly, children are less likely to automatically attend to and orient towards adults. In the classroom, opportunities to attend to peers are available, but most often must be ignored in favor of orienting to the teacher. Teachers may regard peer interaction as disruptive or as cheating.

Avoidance of conflict between children's values and KEEP classroom activites seems in part to be based on the social affiliation, reliance on familiar social problem solving strategies, and independence permitted children in the classroom. Observational research on peer interactions in KEEP classrooms during learning center activities has shown a high frequency of interactions among children which deal with teaching or learning of skills related to children's center assignments (Jordan, D'Amata and Joesting, unpublished manuscript). The teaching and learning strategies which children have been observed to follow in peer interactions parallel

the two major problem solving strategies children follow away from school: Modeling when one child performs a task behavior required of another child while this latter child watches: and Intervention when one child actively intervenes in the performance of a task by another child, in effect performing the required behavior. Children were observed not to rely on verbal instructions to each other, preferring to help by active demonstration of task performance.

Jordan (1980, p. 8-9) summarizes the cognitive and social strategies followed by KEEP children in small group classroom settings:

a) seeking and giving immediate feedback about small segments of performance
b) scanning for and utilizing multiple sources of help and information
c) scanning for evidence that other children need help and information
d) volunteering to help others;
e) switching between learner and teacher roles
f) use of modeling and intervention as major teaching/learning devices
g) joint work on tasks

According to Jordan children's reliance on these strategies is compatible with their problem solving style away from school.

The ethnographer's roles. It is a harder job to try to understand just how these and other insights were used, and what roles the ethnographer played as part of the interdisciplinary research and development team. It is always easier to trace the history of ideas embodied in texts than to track the influence of those same ideas in ongoing action. The most extensive discussion is by Jorden (1981; ms. in preparation), and the following typology is hers.

Direct application of ethnographic insights to program design is rare. But the involvement of children in setting up the centers each morning is one such "planned intervention". Evidently Lynn Baird-Vogt, then a demonstration teacher, conceived of this innovation after hearing Jordan talk about Hawaiian children's home responsibilities and observational learning strategies. More often, the ethnographer participates in what Jordan calls "contribution to a consensus" - agreeing on a particular plan of action for cultural reasons while psychologists and educators agree to the same action on other grounds. For example, Jordan contributed to the development of the center social organization because of the insights summarized above, while others favored the same plan as a way to increase children's time on task, or as a means of freeing the teacher for small-group instruction at Center 1. With respect to still other program elements - e.g. the talk-story patterns of interaction that evolved during the comprehension lessons - existing anthropological research helped the team to understand and elaborate something that initially entered the program for other reasons.

Thus the particular relationship between anthropological insight and classroom practice varies from one program element to another. But the single underlying critical benefit to KEEP seems to have been the presence of ethnographers throughout the research and development process, interacting continuously with teachers and other researchers, and willing and able to contribute in these diverse ways.

Implications for mainland minority schooling

There seems to be little doubt that the KEEP program has a significant

and dramatic effect on Hawaiian children's classroom behavior, making it compatible with the demands of the classroom. Because both the classroom problems and the indigenous strengths of the Hawaiian children are not unlike the problems and the strengths of mainland poor and minority children, it is important to consider the generalizability of KEEP's work.

KEEP's use of social reinforcement techniques to shape children's behavior to the characteristics of classroom culture should generalize to other ethnic groups and settings if the reinforcement techniques practiced by teachers are valid for the particular group. Reinforcement techniques are not universal. For example, teacher's use of physical displays of affection, such as patting on the head or hugging, may be perceived by children from some backgrounds-- e.g. Vietnamese -- as inappropriate and even offensive. Singling out individual children for public praise, to take another example, may similarly be perceived as inappropriate by children from certain Native American backgrounds. Thus literal transposition of KEEP behavioral management techniques is not the answer. To be effective, social reinforcement techniques used by teachers have to be tailored to the ways of particular minority cultures.

One interesting insight from anthropological research has been the study of how the role of female teacher in the classroom contrasts with the role of adult female acquaintances in childrens' lives outside of school. In their classroom socialization, KEEP children have to accept a teacher role that is still benevolent but more authoritarian than

non-mother female "auntie" roles outside the classroom. Non-parental "aunties" in the Hawaiian community are "warm and fuzzy" and non-authoritarian and do not make performance demands. KEEP teachers deliberately combine a "warm-fuzzy" atmosphere (See Appendix C) with a more authoritarian and demanding role. Educators concerned with other ethnic populations might well ask how those childen's acceptance of the role of a teacher in classrooms relates to their perceptions of non-parental female or male adults outside school.

A major strength of the KEEP program has been its willingness to explore what children do naturally and well of their own volition - for example, the acceptance of affiliative behavior of children and the constructiveness that this behavior plays in the classroom. In settings away from Hawaii, a similar exploration should prove useful. In peer tutoring and other informal instructional contexts, for example, Hispanic children otherwise perceived as of low language proficiency are capable of fluent displays of knowledge and language use (Carrasco, Vera & Cazden 1981). Kagan's (1978) research on Mexican-American children's problem solving has shown that such children show less individualized competitiveness and greater social cooperativeness in problem solving than Anglo-American children. A key element in the effectiveness of peer tutoring with both the Hawaiian and Hispanic children may be the enhanced repertoire of social affiliation and cooperation most children can draw on when interacting with each other, in contrast to the relatively more authoritarian structure and politeness constraints of teacher-child interactions.

Several general features of the KEEP program correspond to variables found to contribute to low-income Black children's achievement: the social climate of the classroom, especially a warm but firm teacher; the orderliness and structure of the classroom setting; and the strong emphasis on academic development (Lois-ellin Datta in Zigler & Valentine, 1979). Encouragement of peer interactions around academic tasks may become even more important for Black children in the upper elementary grades, at least according to Labov's (1969) research on the correlation between reading failure in those grades and participation in gang life in the streets. Adaptations of the ETR lessons should be beneficial for Black children also: the focus of the teacher is on the meaning of the language of children and text, not on dialect vs. standard forms. There is a strong oral tradition in Black culture (though different in content and form from "talk-story"), and the concept of a 'balance of rights' between child-influenced interactional patterns and teacher-controlled topics should be helpful. (The reading lessons of Piestrup's (1973) 'Black-artful' teachers can be characterized in this way.) Finally, the Experience approach to text comprehension is applicable for all children. Yet in many early childhood programs in mainland schools, attempts to enhance the language experience of students are separated from reading activity and from the text where the connections might be most beneficial.

But more generalizable than any of these specific program features is the research and development process by which the KEEP program has been developed. What is most adaptable to other cultures is the process by which social scientists and educators shared in the knowledge of a particular socio-cultural context and together drew from it in working out a pedagogy for the population to be served.

TEACHER-RESEARCHER INTERACTIONS AND TRAINING PROCESSES

The advantage of a laboratory school is that it can achieve more control over the conditions affecting program success; the disadvantage is that the results are not easily generalizable to public school settings where such control is less easily accomplished. With some nine years of research spent learning what accounts for effective instruction with Hawaiian ancestry children, KEEP is now in the first stages of public school dissemination. Its task is to find out how the program can be transferred to public schools and what processes are necessary to enable public school teachers to master the goals and gain control over the practices that the laboratory school has shown to be critical for raising academic achievement. Two questions are the focus of the current work: What does it take in personnel to transfer the program? What are the problems in transferring the program to sites that vary in school population -- city, town and rural children in settings where there are distinctive variations in cultural and social backgrounds?

From the beginning KEEP planning was geared to producing a program that would entail the "least disruption" in public school operations, and demonstration teachers have participated closely in the curriculum development process and in the design of exportable training strategies. It is therefore useful to examine how they themselves were inducted into the program and their experiences during its evolution. Almost all of these teachers brought public school teaching experiences to their roles at KEEP. Similarities and differences between a laboratory school operation and the public school context certainly have implications for planning outreach.

However, there is as yet not enough experience with dissemination nor enough analysis of public school data to draw conclusions or make generalizations about effective public school implementation. Because of this, and because our team spent more time with the lab school teachers than with teachers and support staff in the public schools, we have more to say about adult interactions in the lab school and the goals of implementation than about actual realization of those goals in public school sites.

KEEP approached teacher training as a research and development problem. The task was to use the first years of program implementation at the lab school as an opportunity to learn how to induct teachers into the program as well as how best to support teachers on the job so that their effectiveness would increase over time. When they understood those processes well enough they would be in a better position to disseminate the program in Hawaiian public schools. Thus distinctions must be made between the demonstration school with its developmental functions, and training as an implementation and dissemination activity in the public school sites.

At the demonstration school

The experimental nature of the project at the demonstration school significantly contributes to the testing of ideas, strategies and techniques that can be applied to training. Locating the research group and demonstration school on the one site, with its one-way observation deck and videotape facilities, offers common experiences for all to share and data to be used in communicating about project components. The demonstration school's small size and its multiple functions of experimentation, pilot study,

product and process development, provide an ideal setting in which to prepare staff for the various roles that the program requires.

We found five staff roles at the research and demonstration site that contribute in one way or another to the design and study of training processes and to actual training: trainers responsible for the initial training of new teachers; consultants who provide continued on-site support for classroom implementation; demonstration school teachers who both receive and do training in classrooms; recorders who make and transcribe classroom observations and code data for guidance and study; and finally researchers who, in interaction with the others, are ultimately responsible for the processes that direct training. At this central site, data gathering, analysis and inquiry are a continuing part of the core activities in which demonstration teachers are involved.

Researchers, trainers and demonstration teachers all have the opportunity to observe children and teachers interacting in classrooms, to study videotaped highlights of different instructional features, to discuss examples of successful and unsuccessful practices and to collaborate in resolving problems. The teachers contribute ideas from their observations of children's reactions to program features. An important and perhaps unique characteristic of KEEP, then, is the collaborative problem-solving relationships between teachers, researchers and trainers, a relationship not typically found in other projects attempting to promote instructional change. The research and development process at KEEP is not linear in nature, as is often the case in large curriculum development projects, but more interactive and reflexive. While the already fixed elements of

the program (having had teacher input in their development) are now transmitted from researcher to trainer to teachers, with other features, the direction can move from teacher to trainer or directly from teacher to researcher. As one demonstration teacher explained:

> "There is this assumption in many projects that the researchers and developers know and you don't. No feedback is sought. At KEEP teachers feed back reactions to researchers, recognize when something is wrong and alert them to problems. With this kind of teaching your orientation shifts from the more generalizeable features to what is happening in the classroom that should be taken up and examined. This happens in a dyadic relationship between teachers and researchers."

It was a teacher-researcher collaborative analysis of videotapes and classroom observations that led to the fundamental understanding of the influences on learning of the social organization of the classroom. One researcher reports:

> "The teacher generates a question and the researcher tries to frame it in a way that it becomes researchable. My six years of teaching experience help me to spot peoples' good ideas. The ETR sequence is one example. It came out of the lessons of three people (she names them). We did an analysis of videotapes comparing two different classroom styles of teachers and traced the action in the videotapes to understand what was happening. We began to see that how the social setting is organized is important for learning and to think about disruption as a consequence of teacher behavior. We needed to answer the question: do social organization variables have anything to do with learning. So I did my dissertation study (Au, 1980) comparing the interactional styles of two teachers, (one with compatible participation structures and the other similar in many respects but using techniques that failed to achieve the same high degree of child participation in the comprehension lesson).

Demonstration teachers work collaboratively with researchers because of the process by which they are inducted into teaching in the KEEP program and because of the philosophy of teaching which KEEP encourages. Induction into the classroom is gradual. Teachers begin partial responsibility for the curriculum while learning the techniques for teaching reading. An early emphasis is placed on building rapport and working procedures with the children, and on learning to understand native Hawaiian creole (especially important if the teacher is from out of state). Since many of the teachers are not themselves of Hawaiian ancestry, this getting acquainted period provides an opportunity to attend to cultural differences in behavior and to consider the kinds of modifications required in adapting teaching to the Hawaiian ancestry child. As this process evolves and the teacher's competence develops, other features of the classroom are introduced. In the words of a demonstration teacher who had taught Black and Hispanic children before coming to Hawaii:

> "... My problem was I couldn't understand the pidgin speech at first. My own children began to pick up pidgin so I could learn from them. The kids sensed I was a haole and didn't know the 'tricks'. They do it to all non-Hawaiians. It's scary, painful, traumatic for the teacher. Now I look back at it and see it as a tremendous experience. My consultant was of Hawaiian ancestry and she helped me to deal with disruptive behavior. By Christmas I was in control... You don't raise your voice at these kids, you stay calm... Each adult has to establish his or her relationship with the children. You need to have a working climate. Part of the process at first is is to forget about content and work on establishing rapport. Then you teach."

As teachers begin to demonstrate control over the physical arrangement

of learning centers and the management of student behavior, the emphasis in training shifts to the use of the specific techniques designed for teaching of reading comprehension at Center 1. Teachers are observed regularly and continual feedback is provided through conferencing with the trainer. Observers record the frequency of the teacher's use of positive reinforcement and rates of student engagement on task, and this information is made available in record form. What it means to be a KEEP teacher, one said,

> "is having access to supportive figures at a time when you are learning to gain control over your own teaching".

Given the central focus on the day to day transactions between teacher and children, it is not surprising that classroom observation data, formal and informal, center more on the teacher than on the children. Of key importance to helping teachers achieve the goals of the program are the teaching behaviors in those elements of the program considered "essential features." Teachers receive training in all of the following areas, usually in this order:

1. Overview of KEEP and orientation to the reading program;
2. Organizing the physical arrangement of classrooms. Small learning centers, at least 10 are established in each with a different activity type or function;
3. Introducing students to the function and use of the learning centers and encouraging self-management of set up and work activities;
4. Grouping students for instruction based on application of the KROS curriculum objectives and feedback records;
5. Using the ETR sequence and related strategies for direct teaching of reading and listening comprehension at Center 1;

6. Using methods for teaching word identification skills (e.g., analytic strategies for phonics and language experience lessons for sight vocabulary development) at Center 1;

7. Planning, developing and selecting appropriate learning activities and matching materials for each learning center;

8. Building rapport with students; developing sensitivity to spoken creole and to cultural patterns of interaction.

As teachers begin to demonstrate competence in the first three areas, they are introduced to additional features and are expected to orchestrate and maintain each in concert. Support comes from the observers; consultation with the trainer, study of videotapes, and from information yielded by the KROS diagnostic/prescriptive system and its companion the Quality Control Code (QCC)(Au & Hao, in press).

The QCC is a coding system that assesses teacher implementation of the KROS curriculum goals during her instructional time at Center 1. The goal is 2/3 of the total teacher time spent in teaching comprehension. In the QCC, "comprehension" includes all discussion of the story and related content, discussion of the meaning of words used in the Text, and silent reading when a purpose for reading has been specified. The contrasting categories in the coding system are:

S for Sight vocabulary instruction, which includes reading words from cards or lists and reading aloud or silently without a purpose;

W for Word identification strategies, which includes all attention to parts of words;

O for Other, including attention to children not at the Center I group, handing out material etc.

S and W activities are considered important, but in the KEEP program they are not to occupy more than 1/3 of the Center 1 reading group time. Each teacher is observed once a week, unless a consultant has requested more frequent

observation, and the results are used clinically with the teacher to help her maintain comprehension activities at 2/3 of the time and decrease "0".

A demonstration teacher reflects on her own growing awareness of the teacher's role in teaching comprehension:

> "I had never understood before the importance of sitting with children and talking about the concepts in the story. The difference is in what a child brings to the story. The typical manual tells you what to do but not how to draw on the child's experience. You assume children know (about the meanings implied in the story) and you find out they don't so you have to find a connection somewhere. Each child brings in something so there are enough ideas to draw on... Looking at the tapes I realize how important each child is. I still have to check it out. If I don't he may not be understanding..."

And another teacher thinks back to her preservice training, realizing how it creates an unfortunate dependence on basal texts:

> "Teachers in training are told the basal reader is best. If you haven't anything else you stick to it. It takes a long time to let go and begin to rely on the children's responses. (Q: How long does it take?) It depends on the teacher."

Each individual at the laboratory school research and demonstration center contributes his or her ideas and experience in determining what works best in the classrooms, what specific guidance teachers need in implementing KEEP procedures and what kind of problem solving can strengthen the design of the installation and implementation procedures involved in transporting KEEP to the public schools.* Much of the try out, revision, and fine tuning that goes on with the help of the demonstration teachers

---

*Not all teachers inducted initially as demonstration teachers will make it in this job. KEEP seeks individuals who will develop and grow in competencies. Teachers are carefully observed during the training process before permanent assignments are made.

is directed toward the end of achieving public school feasibility.

Teacher training and support at public school sites:*

Implementation in the participating public schools is the responsibility of the KEEP training team, its field-based consultants, and local school staff who are often re-assigned to support roles in the programs. For example, a reading teacher or aide may be assigned to maintain the KROS and QCC record systems and assist in the production of classroom materials. Since the on-site consultants have the back-up support of KEEP research and training staff, they too can approach their work in the field sites as problem solving and research in its own right.

Before working in a new school, KEEP provides an orientation and introduction for district office staff and building principals, and the public school staff members visit the demonstration school. Once the school decides to work with KEEP, the process may include a "needs assessment" and it may take as long as a year before the school is ready to begin implementation. The orientation is designed to ensure that participating teachers are volunteers and that they come to the program expecting to find new demands not encountered before.

KEEP trainers run two-week intensive workshops before school starts.

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* At the time of our visit in January, 1981, KEEP was in two public school sites, was starting work with a third, and had plans to add two more schools for the years 1981-82.

Public school teachers who have volunteered for the program attend these sessions on their own time. Before school starts, the teachers are teamed with a consultant who helps them get started and then serves as an on-site support person. The first year is largely spent learning the system. The consultant may demonstrate the desired teaching practices while the teachers observe:

> "You model it for the teachers first and then observe them doing it themselves."

Second-year teachers work on applying the different elements more intensively. After the first year, workshops are designed for different stages of teacher development; as new teachers join, training is offered at both beginning and advanced levels. Each site presents different challenges to the trainers.*

Trainers and consultants exhibit the same sensitivity in their approach to teachers as they hope teachers will show with children. Thus, they try to be positive while at the same time dealing with what is going wrong in the classroom. Their approach is to encourage teachers to become the kinds of problem solvers they would want children to be:

> "I have to be cautious and very sensitive with some teachers. I say something positive and why it was good and then I talk about what is not positive. I try to be pleasant and work with her at the pace she can handle... It is better to let the teacher think about what she does rather than tell her what to do. This teacher now says, 'How about if I do this next week.' It is the greatest feeling that this teacher is inquiring at the level you want to help her at.

---

*This is one of the few examples we know where staff development for a new program is differentiated by level of teacher experience.

> She knows you will support her and so she is willing to take risks. I give her some choices in the relationship; I am there to facilitate the learning."

The trainers and consultants discussed with us the fact that all teachers need feedback, and it is often the best teachers who welcome it the most. They talked about the benefits of having a group at a school that get together to talk about their teaching.

> "It is very important to talk over even if you are a seasoned teacher. The lack of interaction is what is wrong about teaching. (A chorus of assenting voices). There is never anyone to bounce off ideas. And conflict is part of being a professional. There is a strength in lots of people working together."

KEEP asks teachers to commit one hour a week of their own time. They also work with the KEEP consultant during their preparation periods. With the teacher's consent, the consultant observes in the classroom, about 15 minutes a day, and meets with teachers to discuss problems as time permits. Nevertheless the trainers feel there is never enough time with teachers:

> "You need to make every moment count. One to one in-class advising is the best and only time for feedback." And later, "There has to be continuing support to deal with the issues. People are interested in the WHY after they have the HOW."

Teachers acknowledge that learning the system takes time; in their view, the difficulties they encounter are more bearable because of the regular assistance they receive from the consultants and because they can see the results of the support offered in the progress they observe in children.

A teacher we interviewed at the first site:

> "My impression is that students are doing well and I feel for once in my life that I am teaching... I feel I know more about the child and what he knows. The feedback, it's terrific. _____(name of her consultant) observes in my class every day

> and we meet together once a week and she gives suggestions... It's hard to say if it's hard to learn because I have _____ (consultant)... I am so happy with the program, I wouldn't want anything else but I'm working hard. It's easier as you go on. I think of how many years of success I will have... It's not busy work, it's for a purpose ... I love KEEP so much I've incorporated it into my math program."

The school principal was strongly supportive:

> "This is a sophisticated program good for these children. It's very well organized. It requires a lot of preparation and follow up, more than the ordinary teacher does. That is why the consultant assistance is important. It would be difficult for us to expand by ourselves. It needs the record keeping and testing that the consultants handle... I think we are so fortunate in having a consultant on hand to advise. The teachers are so lucky to have them. It's a different task to make any large improvement... Teachers say the children love the different activities. It's a breakthrough in this area when children get excited about learning. That's something!"

Reflections on our visit, and on the material we read and discussed, suggest that the KEEP staff holds these assumptions about program implementation:

1. Whether children's behavior is disruptive or cooperative depends largely on the teacher's behavior. The characteristics of children's behavior are seen as a function of the teachers' acquiring new skills in socialization of children to the demands of the classroom and in making the work tasks very clear.

2. Whether children's abilities are displayed and utilized depends on the teacher's success in organizing and maintaining the various structures for participation in classroom activities that are built into the KEEP program - for example, organizing and permitting the natural social interaction in small groups by which children can help each other and accept responsibilities as a group for successful completion of activities.

3. Following the KEEP program produces teacher change; that is, implementation of the features, as designed, both requires and facilitates the acquisition of new teaching skills and practices.

4. Monitoring and data collection provide guidance in modifying instruction to approximate the program's features.

5. Skills in handling the most difficult, and most innovative of KEEP practices - the direct teaching of comprehension in accord with the ETR sequence - can be learned through consultant

modeling, through direct observation in demonstration school classrooms, and through flexible use of the framework laid out in KROS. (However, experimentation is continuing with methods of training as KEEP staff explore this process in more depth.)

Thus, support for the implementation is considered to inhere partly in the structures that govern classroom organization and curriculum and partly in the on-site consultant assistance built into the school day. By using the curriculum as a set of goals, the teachers' work is made easier by having a framework within which to work. By using the feedback from consultants, they have information with which to learn from experience. In effect there is a kind of trade-off; in return for allowing performance to be monitored (in ways that can further curriculum objectives) the teachers receive help that is supportive rather than judgmental.

This kind of close supervision in learning a new program is a significant development in school practice. Such a process is unlike the typical school district provision for either staff development or evaluation. KEEP expects that its dissemination effort will be long term and sustained. Evidence to date indicates that even teachers who have already mastered the program benefit from continued, although less intensive, consultation and support. Contact with these teachers also provides information about ways to improve the program, and to meet specific local conditions. Thus, KEEP views itself as having a relationship to each of its public school sites for as long as some level of support is believed desirable.

The tension between goals and their realization: some reflections

We found the KEEP program to be compatible with the organization of programs examined in the process-product studies on school achievement. But

KEEP differs from most programs in its particular emphasis on the teaching of reading comprehension and in the emphasis given to culturally compatible social relationships. While the KEEP program, as a total package, would appear to have the necessary and sufficient ingredients for improving the daily practice of public school teachers, it will be important to understand how close the public school teachers can come to executing the program so that it approximates the goals and processes observed in the demonstration school. However much there are similarities between that school and the public school, in nature of the population, student-child ratio, materials, etc., KEEP is after all a private school controlling many variables that cannot be easily controlled in public schools. We will follow with interest what KEEP learns about transfer of the program and about what it takes in on-site support to implement effectively all the features KEEP feels are critical to school success of the Hawaiian ancestry child.

Specific questions come to mind: KEEP has no control over the faculty in a public school or over who volunteers to participate in the program. Will this practice of volunteerism be maintained when decisions about implementation are made by central administrators eager to have the program in their schools? What will be the consequences if teachers feel forced to participate? Will the energy and enthusiasm of training staff that we found so persuasive be sufficient to generate equal degrees of enthusiasm in teachers who are not volunteers? Teacher selection may present a challenge as the program grows.

As KEEP expands to include more classes in more schools, other

questions arise. Current studies of attempts to raise school achievement emphasize the active participation of the school principal. It is possible that given a supportive principal and effective KEEP consultants, the lack of direct principal involvement will not present a paramount problem. But we were told that there is a high degree of mobility of building principals in Hawaii, largely because the Islands constitute one school district and each vacancy somewhere in the system is the occasion for a whole hierarchical movement up the administrative ladder. If so, then continuity of program could become a serious problem.

As trainers and consultants work with teachers, does it matter how teachers understand the underlying rationale for the new ways of teaching they are learning? For example, the first change is to the center form of social organization. Logistically, this is necessary to free the teacher for her work at Center 1. It also has the immediate effect of decreasing behavior problems and increasing children's participation, and so teachers get an immediate "reward." But we were a bit taken aback when one public school teacher explained to us that children need this structure because "they don't learn responsibility at home". We understand why the trainers and consultants teach the "how" before the "why", but we hope changes in teachers' underlying conceptualizations are sought as well.

Finally, can the discourse about teaching that is such a remarkable part of the laboratory school be transplanted to the public schools? KEEP administrators are careful to point to the continuing collection of data and to continuing evaluation of teachers and program as both essential in

maintaining quality. Evaluation in KEEP includes the "personal knowing" of each staff member, and this stands in marked contrast to the "encapsulated" research reports" that are produced by standard large scale educational evaluations. The KEEP staff are straightforward about the changes they believe are necessary:

> "The data guidance method is available to any school. It requires a re-organization in the use of resources and a different state of mind. Who is evaluation for? The government grant agencies typically constrain evaluation from using resources to feed information back to classroom teachers and to make the kinds of continual assessments that can be used to improve teaching."

Will this continual research and development process for school improvement be exportable to schools that are unaccustomed to it? Is this a realistic program goal?

The continued professional development of teachers should be a school responsibility in the American school system. Nationally, over the years, large sums of money have been spent on curriculum development and in-service training for projects that are no longer in existence. We must question why. Equally large if not larger sums continue to be invested in extra personnel, supplies and equipment for compensatory education services without having a significant impact on the capacities of the regular classroom teacher. Money that is not aimed at the cumulative development of the instructional capacity of the teaching force as a whole may not be well spent today. We need to understand as much as possible about the kind of impact that a well designed program can have on advancing levels of professional expertise.

IN CONCLUSION

As we said at the beginning of this report, to learn about the Kamehameha Early Education Program is to learn as much about its unwillingness to settle for low achievement and about the spirit of inquiry that animates its work as it is to learn about specific program components. The lessons of KEEP are the lessons of that spirit of inquiry, of the multi-disciplinary collaboration among psychologists, anthropologists and teachers; and of the long-term sustained character of their work.

We did not ask for figures on the costs of the KEEP program, but we did learn that, having supported KEEP and its antecedent basic research for ten years, the Bishop Estate Trustees have agreed to continue support for another grant period. This support will make possible both work in the public schools and program development for the intermediate grades. Thus KEEP will be able to test an hypothesis about the long-term effects of an investment in the elementary school years.

Few organizations have had the resources or the priorities that the Bishop Estate has chosen to give to this major long-term effort. But the costs may not be considered too high if KEEP succeeds in creating school contexts in which previously failing children acquire both the basic skills and the inclination to continue in school, and if others can learn from KEEP's experience and get on with that same job elsewhere. The funders in Hawaii seem willing to continue support for as long as it may take to ensure success. That is surely an act of trust and imagination that is not, to our knowedge, generally found elsewhere.

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KEEP Kamehameha Early Education Program

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All photographs this issue by Gil Leebrick.

Appendix B : KROS*

The Kamehameha Reading Objective System (KROS) is the framework for the developmental reading system used to guide teacher planning and monitoring. Arranged in an easily recognizeable scope and sequence structure, the framework is composed of sets of objectives, organized by curriculum strands and levels of difficulty. The two major areas of reading instruction, Comprehension (including vocabularly development) and Word Identification Strategies, are divided into 16 levels for grades 1-6.

The objectives are arranged developmentally according to a rationale based on assumptions about increasing difficulty and guided by research findings in the field. Each new objective is built on preceding ones while objectives already introduced are strengthened and applied in new contexts. A significant amount of redundancy is built in to ensure that children who need plenty of practice get it; but there is a wide variety of activities and modes of practice, including diverse formats for written work.

The KROS framework serves diagnostic prescriptive purposes for the program, the teacher and the child. The teacher can use it to make clear to the child what his or her learning objectives are and to provide feedback on children's progress, based on the criterion referenced test results. Knowing what is expected of him, the child can assume more responsibility for his own progress.

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*This is a condensed description of the Kamehameha Reading Objectives System abstracted from the introduction to the manual. Before KROS was developed (1976-78) the curriculum objectives used were those of a comprehension-oriented reading system developed in Tucson, Arizona at the Flowing Wells School.

KROS urges teachers to use the system as a guide for teaching and not as an exhaustive list containing everything that should be taught and learned. The manual states that teacher judgment must be applied in tailoring the tasks to fit the needs of particular students, in creating intermediate steps between one objective and the next, and, in some cases, in developing skills to an extent greater than is required by the criterion measures. Students who demonstrate competence can move ahead regardless of the grade assignment.

Each objective has a corresponding test item specifying the criterion for demonstrating mastery. Test items are clearly intended to be a sampling of the child's skills, and teachers are expected not to limit instruction to items on the criterion tests. Test questions vary in format to familiarize children with the different ways by which competence can be demonstrated. For each objective and accompanying test there are instructions for administering the test and a color-coded scoring key. The coding system relates each test item to its level and strand. With these records, teachers can prepare profiles of each child's progress.

Comprehension

From the start, understanding of the text is the goal; the system aims at an orderly progression of the cognitive and thinking skills underlying comprehension. The substrands that compose comprehension are: narrative discourse, expository passages, vocabulary (organized into definitions, analogies, use of context), and information retrieval. Comprehension tests are made of stories and passages, organized by readability

level. Empirical research conducted by the project has produced a scale or hierarchy of five levels of prototype questions for evaluating comprehension. Questions at all reading levels range from literal through interpretative to inferential skills (Crowell & Au, 1981). The principles that guide listening and reading questioning differ in KEEP from the formulaic and heavily literal question and answer routines found in many of the teacher manuals in common use in basal reading systems. KROS states:

> "By asking questions which are at the child's level or slightly beyond, the teacher can be more certain that the child will become an active processor of information; neither bored because the questions asked were too easy, nor discouraged because the questions are too difficult." (Crowell & Au, 1979).

Word Identification Strategies

Word identification strategies include Sight Vocabulary, Structural Analysis and Phonics. Words that compose the sight vocabulary strand have been selected on the basis of studies of frequency of usage in the child's spoken language and in typical reading materials used in the elementary school. About 200 words constitute approximately 70% of the lexicon used in these contexts. This basic list of 200 high frequency words provides the content for multiple types of practice that can lead to automaticity. KROS defines sight vocabulary as "words that are identified immediately". Structural analysis focuses attention on word elements such as plural, possessive and verb inflections; root words and affixes.

The principles for teaching phonics stress that it not be taught in isolation from other skills and, especially for the younger reader, that it be closely associated with context to keep the meaning of the passage the primary focus of attention. This does not mean that phonics rules are not directly taught. Some form of phonics is retained in 10 of the 16 levels in KROS. KEEP has selected those phonics generalizations that it has found most useful, guided by prior research in the field.* Here, too, objectives are ordered developmentally. They begin with the letters in the child's name and with words familiar from his immediate environment, move into matching letters and word discrimination, and letter recognition (not reciting the alphabet). From there the sequence moves into rhyming words which lead naturally into word families and clusters in context. Initial consonants, digraphs and final consonants are also taught, but, again initially always in context.

Practice in phonics and other word identification strategies occurs in multiple contexts. In the comprehension lesson (in Center one), teachers reinforce approximate guesses, provide cues to aid the child at the moment, and note word recognition skills that need to be included in practice materials in independent work at the other learning centers. Teacher-made assignments are thus based on the child's responses during the comprehension lesson, on teacher reviews of worksheets completed and on data from the periodically-administered criterion-referenced tests.**

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*Based on work by Clymer in 1968. Although Venetsky's more recent research is based on sounder linguistic knowledge, KEEP has deliberately made its own changes and additions to the original set of phonics objectives on recommendation of their own teacher trainers and demonstration teachers.

**According to Tharp: "For decoding and sight vocabulary, the testing is continuous; that is, whenever the child appears to have mastered the objective the appropriate individual or group test is administered."

The staff believes that the wide variety of practice exercises provide sufficient opportunities, over time, for reaching automaticity -- exercises that include not only paper and pencil activities and chalk board lessons but also manipulative activities involving written work -- following a recipe in cooking, recording a field trip, board games, etc.

E-T-R Sequence

(prepared by Lynn Baird Vogt and Karen Bogart)

I - Experience Base (E), Preview, Prediction

During the (E) phase the teacher is assessing the children's experiences and interests in regard to the story or the content to be covered. Keep in mind that our children are not experientially deprived, but may not have experienced the exact same content portrayed in the story. The teacher is assessing students on 3 measures with regard to the impending content.

1. concept load
2. language/vocabulary at listening/speaking level
3. interest level

To begin the (E) phase, ask a leading question or general discussion of the topic or an aspect of it that would likely have been experienced by the students. Next, reveal portion of the T (text) - picture/ title or sub-title/ first paragraph or page.

Lead into the next phase (T) with predictions

1. predictions are open ended and later resolved with evidence
2. predictions stimulate interest and motivation to be involved with the text
3. predictions provide a structure for the search for comprehension

II - Text Involvement (T), Silent Reading with A Set Purpose

The purpose set from the (E) phase assures motivation to read since the group feels personally involved. Encourage reading at their own pace and reflecting on the purpose that was set by the teacher, and how the text is similar or different than their own experiences. The length of the passage to be read will vary from a single paragraph to a few pages.

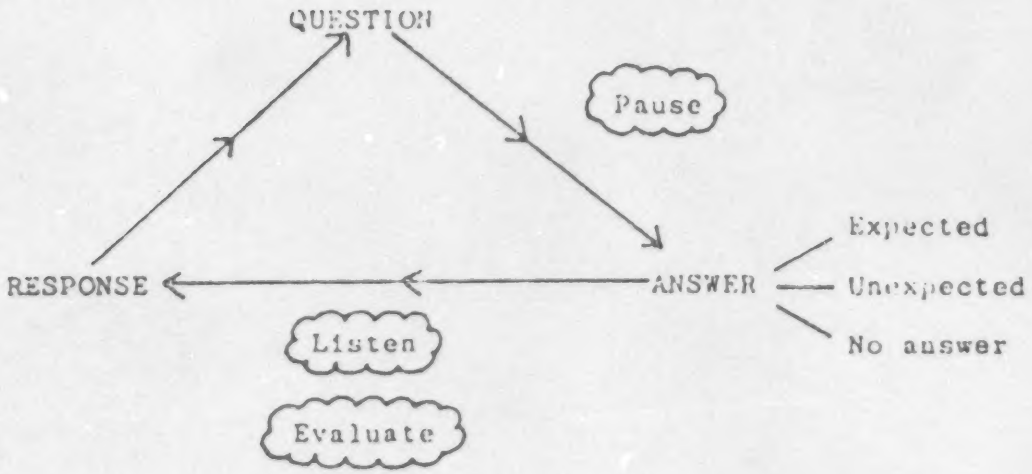
To begin the (T) phase, set a purpose before reading/ listening based on E discussion or predictions. The children silent read while the teacher observes and considers implications of the E phase and her own goals of the lesson. Begin follow-up discussion with lead-in question. Continue with questions to assess comprehension and vocabulary.

Lead into the next phase (R) with inferential questions that draw more on the students' own knowledge base.

III - Relationship Building (R), Discussion

Question and build comprehension that will guide the children to see relationships between the E base and the Text.

Question more for personalized responses and application of T information. Discuss similarities or differences between T and E. Skillful questioning can assess how well the text was understood and still allow the children to operate from the comfortable 'known' of their own experience and interest. Confirming or denying their original prediction helps build the Relationship (R) between their Experiences (E's) and the Text (T). The R phase often becomes the E phase for the next cycle. Typical lessons repeat the 3 phases several times, especially in the early grades. In 2nd and 3rd grade T's and R's often alternate after an initial E base has been set.



Questions are not preplanned, but a function of child's experiences and the answers he gives.

All questions after the first, are based on the teacher's evaluation of the answers and her comprehension goals for the lesson. This guards agains two "evils":

1. Over structuring the lesson and leaving out the child's expertise.
2. Becoming a random talk-story session without guiding any thinking, or relating back to the text.

PLANNING A READING LESSON: (prepared by Lynn Baird Vogt)

Title of the story: _____

1. Read the story through to pick-out the salient points of the story--REACT to the story. Then high light the plot as you recall it or the most thought provoking aspect (character, moral, etc.)

2. List the problematic vocabulary.

3. List the problematic concepts.

4. Choose a possible R to work:
   For example: Main Idea - You can be happy wherever you are.
   Cause and Effect - The more the laces came untied, the less patience the Troll had.

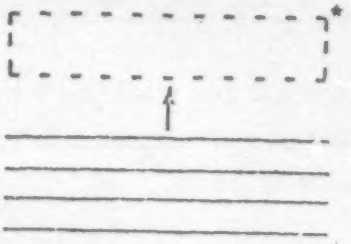
5. Break up the story to determine ways to build a bit of the R each day. (Use beginnings of structures).

6. Review problematic list. Delete vocabulary and concepts that would be distractors to reaching your R.

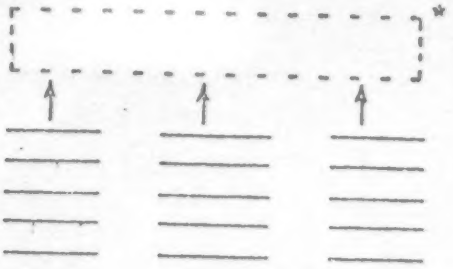
7. Prepare E phase questions, activities for problematic vocabulary and concepts needed to work the first unit.

8. Begin with E-T-R sequences to build to final R at the end.

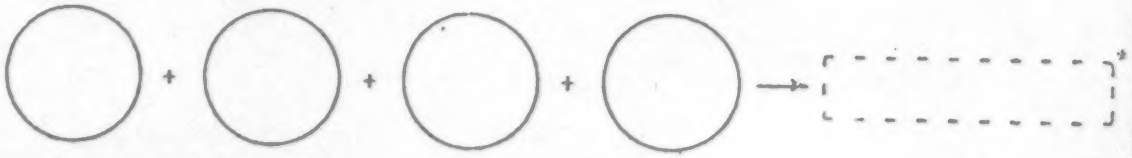
1. Simple Listing



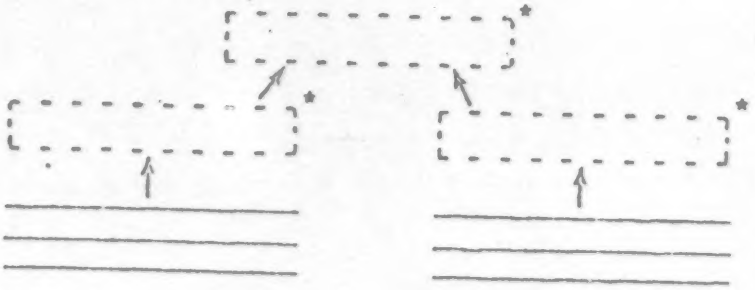
2. Classification



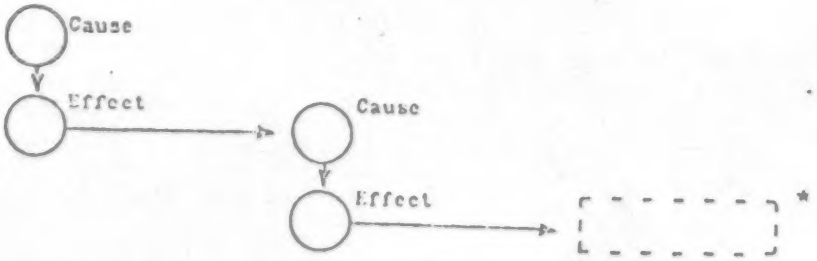
3. Time Sequence/Process Sequence



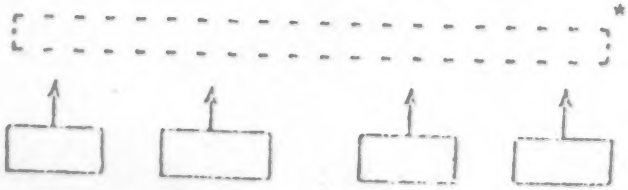
4. Comparison/Contrast



5. Cause/Effect



6. Part/Whole



*Generalization/concept

Appendix C.

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GOALS FOR FIRST WEEK
(prepared by Sally Vuyk)

GENERAL BEHAVIOR GOALS

-Ch to sit in two rows, quietly, outside classroom before school start
-Ch to enter room by walking and quietly sitting at the table with heads down.
-Ch to wait quietly during morning business.
-Ch to come quietly and orderly to sit in rows or a circle with legs crossed and hands in lap. When each table is called, Ch push in chairs before coming.
-Ch to raise hands before participating.
-Ch to always walk and sit with chairs flat in the classroom.
-Ch to use inside voices and respect rights of others in the class.
-Tables and floor to be kept clean by ch.
-Ch to walk to bathroom or office, also to recess
-Ch to care for bathrooms properly.
_Ch to observe playground and lunchroom rules.

Tues.
Wed. SPECIFIC GOALS

T Ch

-During large group lesson, Ch to attend to lesson with legs crossed and hands to self.
-When moving from large group to seatwork, Ch should walk to seats, get needed materials quickly, and begin immediately to work.
-Ch to stay in seats, work quietly, and complete assignment during seatwork period.
-Ch to draw on other side of paper if finished ahead of group.
-Ch to care for caddies and other materials as if very precious.
-Ch to identify table color and only use caddy with that color-taking care to return colors point up, scissors and pencils points down. Glue always with paper clip in top.
-Ch to learn location of scrap boxes and kleenex inorder to get and return in clean-up procedure.
-Ch to put paper scraps in shoe boxes when cutting. Boxes to be emptied in waste basket by table leader at end of seatwork.
-Ch who gets caddies and boxes are to return them to proper places.
-Ch to use appropriate gluing techniques-only one finger if need be, and always replacing clip.
_Ch to check table and caddies to see if everything is put away corre

Thurs.

T Ch

-Ch to identify name on chart and also identify which shape they are (square, circle, diamond, oval, rectangle, and triangle)
-Ch to quietly divide into two groups-first group to stay on rug with teacher and second to walk to seats and go directly to work on seatwork.
-Ch to learn to work independently while T is working with other half of group or individuals.
-Ch not to interrupt T while doing own work.
-Ch to respond to timer properly, by putting papers in their folders at the table, putting materials away in caddies, and putting heads down on table to show ready for change.

GOALS FOR FIRST WEEK

-Ch to wait for verbal directions from T to change from rug to tables and tables to rug. Ch on rug to sit with hands in lap, quietly waiting for directions(heads don't have to be down.)
-Ch to understand importance of getting to work immediately and finishing work in the period the timer is going-15 mins.
-Ch to stay in seats during independent work period.
-Ch to either draw or play tic-tack-toe with child at table when done with work. Coloring is also an option.
-Ch to learn correct procedure for doing scramble sentence formats. Cutting, pasting, writing sentence, then drawing picture to go with sentence.

Fri.

Ch

-Ch to again identify group to which belong.
-Ch to divide again into two groups; but instead of rug/homeroom seat set-up, Ch will go to activity at either center 2 or center 3 tables marked with appropriate shape.
-Ch to read chart to see which center and activity to go to for the 15 min. period.
-On verbal directions from T, Ch will go to appropriate center and begin work immediately by unclipping clothes pin, taking paper, reclipping to unused papers, and returning to tray, getting things from caddy and starting to work.
-Ch to respond to timer bell by putting paper in folder, materials in caddy, and heads down without talking to show T that table is ready to change activity and center.
-Ch to finish activity during 15 mins. allowed by timer; if done earlier to turn paper over and draw or play tic-tack-toe.
-Ch to learn to fill out library card with own name and address.
-Ch to learn to do rebus context sentences correctly (format)

GOALS FOR TEACHER

-Clearly defined rules often through modeling and praising correct behavior rather than listing rules.
-Slow clear directions. Move slowly with a purpose.
-Continuous monitoring and scanning to:
  Reinforce good behavior/appropriate behavior
  Catch unappropriate behavior to ~~it~~ cue, ignore, give alternatives, or desist as the needs be.
-Shape large group and independent seatwork by above methods.
-Special emphasis on good use of materials.
-Keep momentum going-smooth for minimal transition time between activities/don't keep Ch waiting between activities.
-Have materials ready and procedures in head.
-Be consistent in all above.
-Be an objective observer.
-Be continuously aware of strengths and weakness of each child as week progresses.

-Stay calm, smile, don't over plan or worry. HAVE A GOOD TIME!!!!

GOALS FOR SECOND WEEK

SPECIFIC GOALS

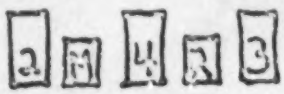
Monday

-Ch to identify shape group to which he/she belongs.
-Ch to divide into 3 groups with 2 shapes in each groups.
-Ch to stay with group as groups rotates in counter-clockwise direction to three centers with numbers 2, 3, and 4. (2 tables each)
-Ch to identify their shape at one of the two tables labelled with the center number-then go to the correct table to begin work.
-Ch to use center number written by teacher and visual clues below their charts to help them determine which center to go to.
-Ch to exhibit behavior demonstrated on Thurs. and Friday of the first week: staying in center, seated; getting to work quickly and using inside voice; finishing activity in 15 min. period, drawing on back of paper when finished early or coloring activity; placing work in folder beneath blue trays when finished, cleaning up and checking to see caddies are in good order.
-Ch to read and understand task card at new manipulative center.
-Ch to understand procedure and demonstrate process of folding paper in fourths and copying from wall chart. (KO's charts)
-Ch to respond to timer by cleaning up center, putting papers in folder, and heads down quietly and quickly to show center is ready to change.

Tuesday

-Ch to again divide into groups by shape.
-Ch along with visual cues under each chart should read and go to the center indicated by the number in the pocket chart. Between center periods, they should identify other activities such as milk and recess breaks by capital letter in the pocket charts: *center numbers will not be in a systamatic rotation as on Mon.

example:



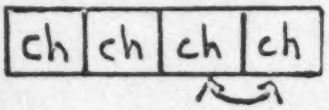
-Ch to becareful to only take one paper at a center or there will not be enough for the preceding groups. **important new concept introducedthis day.
-Ch to again practice format in interpreting rebus direction in the manipulative center and correctly completing task with wall charts with less supervision from the T.
- Ch to demonstrate ability to complete cloze sentence format and begin to learn open ended sentences with more than one correct answer.(Using My Word Picture Books. (I can_____ _____)

- Schedule for three center changes

8:45 -9:00 1st period
9:oo- 9:10 Milk and cracker
9:15 -9:30 2nd period
9:30-10:00 Recess
10:05-10:20 3rd period

GOALS FOR SECOND WEEK -Continued

Wed.
Thurs.



-Ch to follow pocket center numbers for each of three periods. However, one set of shapes will subdivide, one shapegoing to library and the other set going to games area.
-Ch to follow procedure in using library:
1. Read names of classmates on bulletin board.
2. Spend remaining time reading and enjoying books on shelf or tape recorded story(one set of earphones)
3. Only one child in cubical at a time.
4. Return books to shelf with titles showing and right-side
5. Handle books with much care and report any damage at end of period.

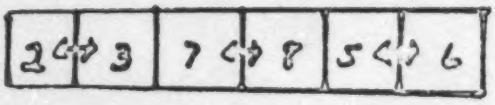
-Ch to follow procedures in using games: (Lotto and Indiv. games)
1. Play Lotto twice, then get indiv. games under the table.
2. Games should be played quietly and cooperatively.
3. Games must be kept on the table and Ch must sit up to play
4. Clean up so games are in the proper place and zip-lock bags are correctly closed.
-Ch to follow other center behaviors listed for days before.

TEACHER GOALS

-To introduce five different centers, manipulative, phonics, games, listening, and comp.
-To clearly define rules (often by modeling) at each center.
-To intro. work at each center and define specifically what should be done and appropriate behavior.
-At first be very specific with center directions and work, with long-term goal of ch needing little assistance in following directions, reading task card, andcompleting the correct formats especially in phonics and comp. centers.
-To continuously monitor and scan centers to reinforce correct behaviors in work habits and following directions.
-To present center work as fun and challenging.
-To keep a positive and warm fuzzy atmosphere in the classroom.
-To be consistent,slow and calm. Be on top of appropriate behavior.
-To keep to 15 min. centers and short snack time.
-To remember to set timer at each center period.
-To introduce the following formats and insure children know how to do them: rebus task cards, phonics charts, cloze sentence, Pathfinder phonics task cards, and lotto sight word games.
-To smile and have fun/at same time giving close evaluation to ch work, strengths and weaknesses.

SPECIFIC GOALS FOR CHILDREN

Friday
Monday



6 Centers 6 Groups
3 Periods

-Ch to divide correctly into 6 separate groups, each with a shape name--same as second week.
-Ch to correctly follow numbers in their own pocket chart to six different centers, three each day.
-Ch to understand and follow procedure for new listening center introduced on Friday:
1. Tape captain sits at the left by the player and is only one who runs the tape--remembering to rewind it at end of period.
2. Book captain sits at right of table and passes out books to ch at the center/collects them when tape is finished and passes out follow-up papers.
3. Earphone are clipped over edge of table when not in use.
4. No one should touch listening controls.

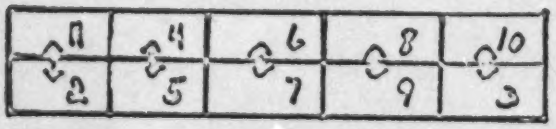
-Ch to understand use of language masters and follow-up activities involved when finishing with the machines: (Second new center)
1. Orange plug should be plugged in and earphones should be put on. Other cords and plug should not be touched.
2. Ch should get packet, say each word on the cards and then slide it in the LM right to left. When card stops take it out and lay it to the side. Repeat procedure with each card.
3. Then replace cards back into envelope and take out laminated card, get a sheet of lined paper, and copy cloze sentences. Ch should write correct word that makes sense on the line.
4. Captain of last group at the center should only unplug orange cord and put end under the table.

-Ch should learn the following formats:
1. Comprehension activity in which ch fold newspaper print, copy from a large task card which has four sentence to copy and do EX: Draw four red apples.
2. Pathfinder Task Card-format number 2 in which ch only draw two out of three pictures in each row that has the same sound.

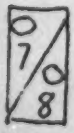
-Ch to learn and follow correct procedure for playing SV board games.
1. Roll die to determine who goes first; each player take a marker and place it on the word start.
2. Each child rolls the die, picks up the number of word cards indicated by the number, says those words, and then moves as many as correct words he's said.

-Ch to demonstrate center behaviors listed in previous weeks' goals.

Tuesday
Wednesday



10 Centers 5 Groups
5 Periods



-Ch to identify shape group to which he/she belongs and follow the center numbers in the pocket chart--includes 2 centers, Milk break, 1 center, recess, and two centers. Each group of six ch is further subdivided in half. The top three ch are black dots the bottom are coral dots.

GOALS FOR THIRD WEEK -Continued

Schedule for five center changes -20mins. each

8:25-8:45 1st period
8:45-9:05 2nd period
9:05-9:15 Milk and cracker
9:15-9:35 3rd period
9:35 Recess
10:05-10:25 4th period
10:25-10:45 5th period

-Ch to follow and begin to learn the permanent center signs that are hung from the ceiling. (They will be the numbers used in the final routing system in the folders.)
-Ch to learn the correct procedure for water coloring in the new art center--getting water carefully from the sink, using newspaper under the paints and paper, emptying water at the end of the center, etc. Also correctly following rebus task card without much help from the T. (illegible)
-Ch to correctly use colored shapes and rebus task cards to complete task at the manipulative center.
-Ch to be introduced to and learn the following formats:
1. LM format in which ch reads all the sentences at his/her SV level and then illustrates one of the sentences on paper as the follow-up. (Second of two formats for the LM center)
2. Review of scramble sentence format in conjunction with learning how to complete correctly a story cloze format.

Wed. -Ch to begin carrying their own folders and keeping their papers in good order with names at top and papers all facing the same wa
-Ch to become less dependent on teacher for direction and T begins to withdraw and work at center one by herself without interruption

Thursday
Friday

-Ch to identify with a new group-each group having color names instead of shape names. (blue, orange, yellow, green, and red according to reading levels) Homogeneous grouping begins today.
-Ch to follow schedule of numbers in thier chart with minimal help from teacher.
-Ch to identify own groups work at the centers by the color on the clothes pin and/or other similar markings such as round dots.
-Ch to learn to complete the following new formats and activities:
1. Read rebus cards and follow directions to make chocolate pudding with sequence follow-up.
2. Pathfinder Phonics format--third form which requires putting initial cons. at the beginning of a word.
3. Letter stamping of sight vocab words.
4. Determine own initials and completing that page for ME BOOK.
5. Beginning new handwriting book.
-Ch to begin to view chance to come to center one as a special time with them and T. Others not to interrupt and to solve problems themselves at the other centers. (T will still heavily monitor, but begin to work briefly with children at center 1.)

GOALS FOR THIRD WEEK -Continued

TEACHER' GOALS

-To intro. four new centers, language master, listening, art,and writing.
-To clearly define rules(often by modeling) at each new center.
-At first to be very specific, but then slowly withdrawing as ch become more independent.
-To continuously scan and monitor--catch all good behavior-
-Problem solve with ch as problems arise.
-To institute 10 smoothly working centers--each child going to five each day. Signs to be hung in permanent place.
-To introduce ch own personal folder and proper use of.
-To review and evaluate KROS data and own data collected to make judgements as to homo. groupings, in five color gps.
-To begin on Thurs. and Friday to put multi-level work at centers with clothes pin color indicating group.
-To review in centers most formats taught in previous weeks and intro new ones--LM context cards, board games, two Pathfinder phonics formats cloze story format, and letter stamping along with water coloring.
-To reinforce appropriate center behavior as listed before--especially with warm fuzzies and trips for hard workers to the Library on Thurs.
-To insist work be finished and if not--has to be done at recess.
-Gradual withdrawal into teacher center with little interruption.
"Have a warm fuzzy atmosphere"

GOALS FOR FOURTH WEEK

SPECIFIC GOALS FOR CHILDREN

Monday - Thursday — Homogeneous Grouping — 10 Centers, 5 periods

Tentative Reading Groups — 5 groups by co[lor] (subdivided i[n]

-Ch to identify own group by color and follow independen[t]ly one of two routings below name in pocket--coded by dots.
-Ch to learn to work independently without teacher super[v]ision in centers; solve problems themselves; bring up problems when changing to next center instead of time during that center.
-Ch to accurately choose own work by colored dot that matches reading group color at centers WA, Follow-Up, and Comp.
-Ch to exhibit center behaviors listed in past three weeks of goals.
-By end of week, Ch to learn to file empty folder behind correct reading group color, and finished papers in bin to be checked.
-Ch to learn that Center 1 is very important and not to be interrupte[d] unless an emergency--define that term so all know meaning.
-Ch to place folders under the table and heads on arms when coming to Center 1--signal that ready to begin to teacher.
-Ch to learn and understand following formats and procedures:
1. Mini-Books--reading entire book and then doing follow-up (may have to share book)(Be sure to get correct book and follow-up for color reading group)
2. SRA LIstening Lab--listening carefully to story, answeri[ng] question with yes or no, and then choosing picture and letter to put in the box.
3. Phonic Chart--folding papers in eighths, and copyi[ng].
4. [Th]e Book-- identifying own initials and making next addition [to] own book.

-[Ch] to find [SV] level on task card at games, manip. & LM centers. The[y] choose correct level of activity to complete.

TEACHER's GOALS:

-To make final withdrawal from center activity and concentrate on Center 1 activities.
-To stay in Center 1 with only a few exceptions.
-To begin more emphasis on academics and less on behavior--although still heavily aware of center activity and possible problems.
***To evaluate group placement by use of LEA Stories, SV testing, and phonics levels 3& 4 call up testing. Final decision by end of [w]eek.
-To continue positive and warm fuzzy atmosphere --emphasis on good.

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